

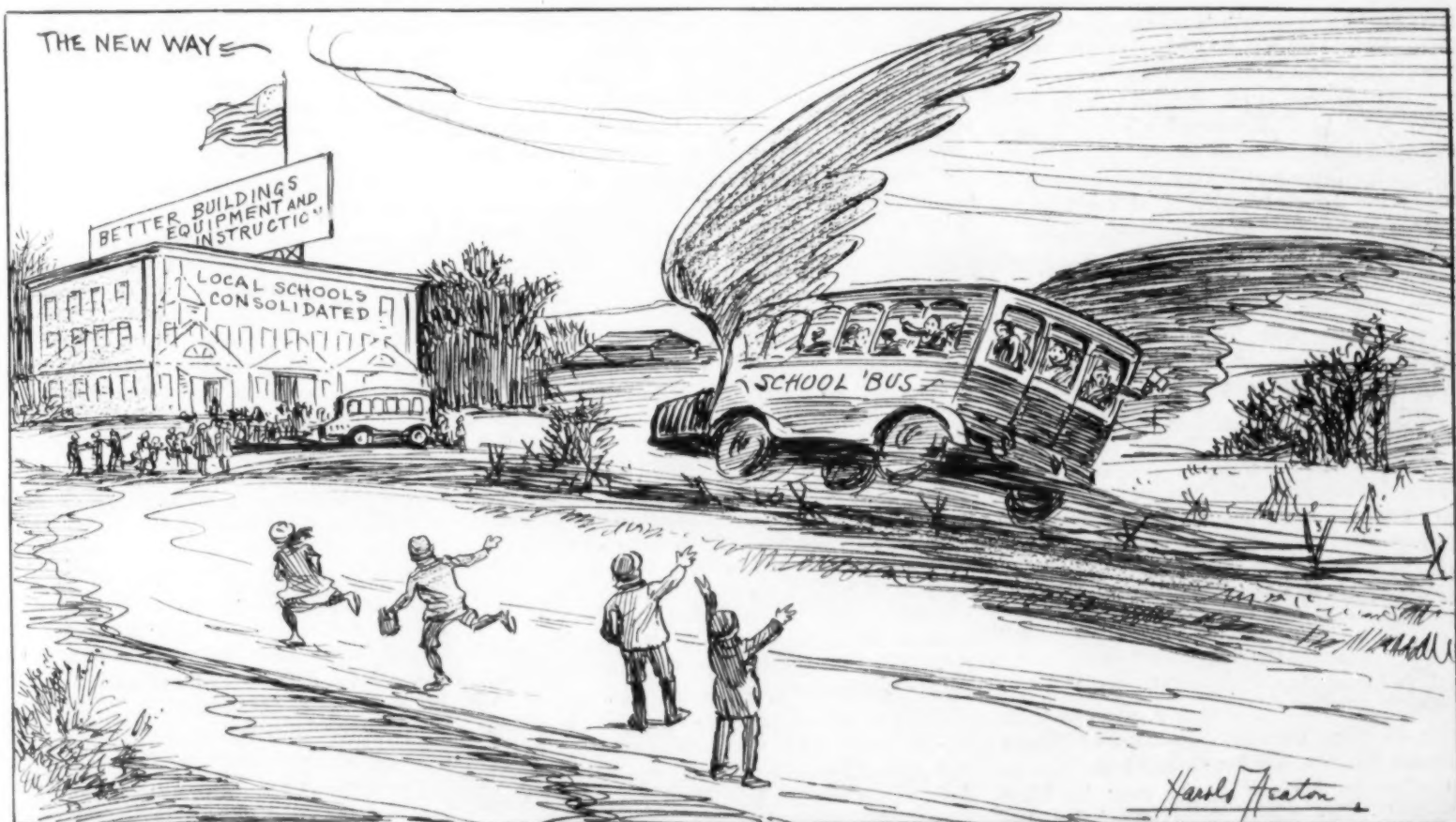
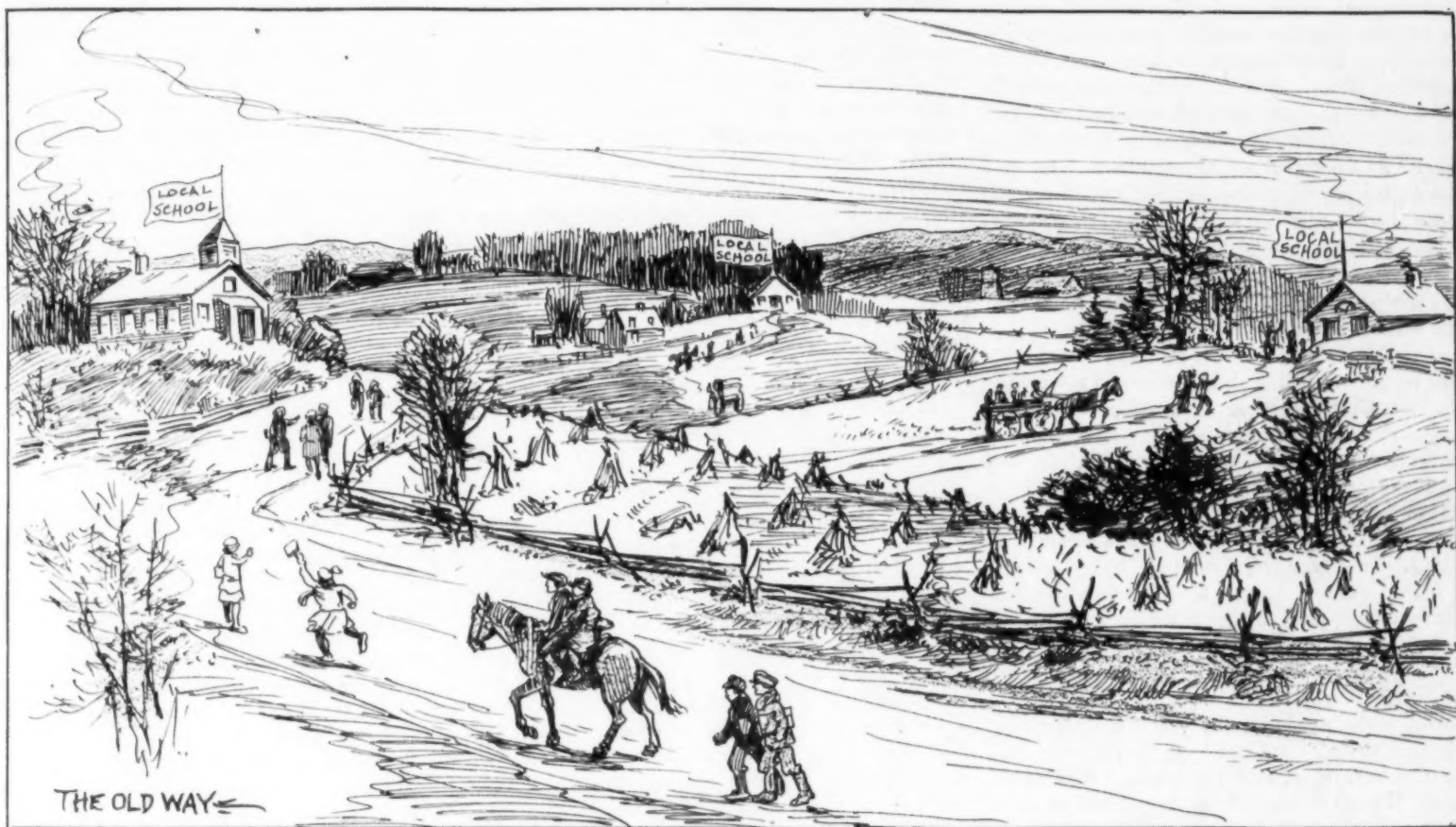
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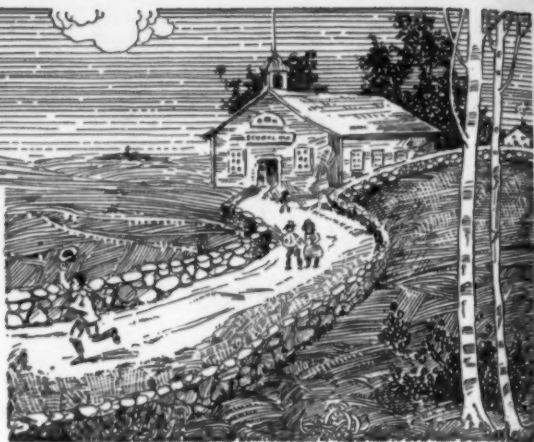
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The Unifying Bus.



Letters from a Country Superintendent to his Daughter



Dear Daughter:

I took your letter up to the hospital tonight and let your mother read it, and although she is still weak I could see that she is not entirely sorry that you turned down that fine offer in New Jersey and have decided to take the school in South Sandisfield because you liked the honest way Superintendent Anderson described it as being probably the hardest school in the State. Rural schools need just such decisions.

You did not say what Mr. Anderson told you about the school that made such an impression, but I am going to tell you how it was when that town was in my district. It was six years ago when we lived in Granville, and you were away from home attending high school in Springfield. South Sandisfield is a little settlement of about half a dozen families and a more quarrel loving people never collected in one school district. It is fourteen miles from a railroad, and when you go there in September, you will probably remain there until the middle of May. In my days, we never closed school for Christmas or Easter holidays because the expenses connected with getting in and out of the district ate up more than a month's salary. Of course that was before salaries were increased as they were during the war. I remember one teacher who started home at Christmas and got snowed out; that is, she was unable to return until early spring. The families all live near enough to the school so that drifted roads do not prevent a fair attendance all winter.

The people of South Sandisfield are fine people. They will do anything in the world for a person, but if they are not busy doing something for you, they are sure to be busy fighting with you. I remember one big fight I had over there. It was just after I first became a superintendent. You were away from home at the time. Word reached me that the teacher was not a fit person to teach school, so I went over to investigate. I called the people together and we had a general conflagration, and as a result, this was what I learned. There was a widow over there by the name of Mrs. Clyde who had a son that fell in love with the new teacher as regularly as a new teacher arrived. And while Raymond was attentive to the teacher Mrs. Clyde was genuinely motherly to her. But when the question was popped, as it always was, just about the time of the Thanksgiving concert when Raymond was so busy helping to decorate the school, a sudden change always took place. The teacher ceased to be an angel. And this year was no exception.

Ray says "Will yer?" Teacher says, "No thanks." Mrs. Clyde says, "Vamp."

And to prove her charges she produced a little book which the teacher had given to little 16 year old Ellen Ruiski. It was called "From the Dance Hall to Hell" and had been sent to the teacher by her old pastor over in West Springfield. The whole town stood by the

teacher and poor Mrs. Clyde had only one friend and that was your Daddy. Mrs. Clyde promised to send her daughter to school and I thought the matter was settled satisfactorily. But a few weeks later word reached me again that there was more trouble over there, and I drove over again. This time, I found that Mrs. C. refused to send Ella to school, so I had no choice but to make her appear in court charged with breaking the attendance laws. And what do you know? The very people who were saying the worst things about her when I arrived at the settlement, went round the neighborhood that night and collected \$50 for her with which to hire a lawyer.

I recall another incident that happened in that district that always amuses me whenever I think of it. I was over in Great Barrington, in Court, getting some information concerning a man named Carlson, who had a big boy attending the school you are going to teach. He had taken a quart of whiskey to school and had given some of it to the small children. While in Barrington, the Chief of Police told me it was dangerous to go to South Sandisfield without a revolver, and he gave me a permit to carry firearms. Of course I didn't own a gun, so the next time I went over that way I borrowed a revolver from Edgar Peck. But I was so much afraid of the blame thing that I packed the cartridges in cotton wool in a little tin box and carried the gun empty. Well, when I got over to New Boston that day I got word that Friend Carlson wanted to see me and of course I expected trouble. Half dead with fright, I drove up to his place next day, for I stayed in New Boston that night. When I got within sight of the house, I stopped Old Mollie, the horse, loaded the revolver, and put it in my overcoat pocket. Then I drove into the dooryard. Carlson rushed out of the house fit to eat a lion, followed by his wife. "What kind of a teacher do you call this one?" he demanded? "A rotten teacher," says I. And she was, too. I had gotten her from a mail order teachers' agency up near Haverhill, which guaranteed to send teachers that would surprise the district. And this one certainly did. Then the wind jamming contest began. Carlson's talk was half Finnish, quarter broken English, and the rest just plain cuss words. After we had talked for almost two hours, and had said nothing, I began to think perhaps I would not have to kill the man after all, and I started to drive away when he made me stop again. He sent his wife into the house for something and I thought she had gone after a report card, or an example that had been marked wrong, and that another round of the fight was about to open. But no. Out came Mrs. Carlson with a goodly size bag of the blackest maple sugar you ever saw. The sugar was no good but it meant that we were friends and that they had believed me when I told them the whole truth. When I got back home I gave Mr. Peck back his gun and I never

again worried about firearms.

But Sis, don't let me frighten you. When school closed that spring I got rid of the mail order teacher and went down to the Lowell normal school and persuaded their most promising graduate to take that God forsaken school. Her name was Anna O'Dowd and she had the smiliest disposition you ever saw. From the minute she entered that settlement, that school was like Heaven. She did a wonderful piece of work there and despite the fact that she did not go home from September till late in May, she enjoyed every minute of her sojourn. Her heart was in her work and she was too big to listen to small gossip. Of course she had one advantage over the other teachers. Ray Clyde did not want to marry her, because she was not of his religion, the first teacher of her faith that ever taught that school.

I was down in Sandisfield last summer with Charlie Johnson, the county road supervisor, and they told me that Ray Clyde had finally gotten married. That he had married little 16-year old Ellen Ruiski. So you will not have him to bother you. Except for that, though, I couldn't see any change in the place. Everyone I met told me what everyone else said when they heard I was leaving and how sorry they personally felt to have me go.

The normal school will soon be closed now, and when you are home we can talk over your work together. I am trying hard to get down to your graduation, but do not let yourself count too much on it. But if I do not succeed you may rest assured, you, yourself, will not be more disappointed than I shall be. Your mother is not expected out of the hospital for another fortnight, so it will be out of the question for her to think of going. She had a hard time, but she is gaining rapidly now and your new little sister is beginning to gain a little. It looks now, though, as if they will both be home to welcome you when you come.

I am sorry that you have decided to work another summer at the hotel at Kennebunkport, for I was hoping that last year would be your last. But sickness and the extra expenses of moving, have kept us back financially another year, and I guess I will have to give in to you again. Except that the work is so hard, I think the experience is good for any girl. I know it broadened the normal school students that worked at the Parker House the years I was putting myself through college. And as for myself, well, you know the story. It taught me to pick the flies out of blueberry rolls and then to eat the rolls afterwards. It also taught me not to order blueberry pie during August. But for the girl with a strong character, I believe the experience is more helpful than detrimental, so I shall not let myself worry about your going.

I am afraid I have written too long, so I must close. Your mother sends her love.

From your affectionate

Daddy.

Measuring the Achievement of School Pupils

Harlan C. Hines, The University of Washington.

Measurements of achievement, through the use of educational tests, have come to be a common feature of the public schools. Dr. E. L. Thorndike, of Columbia University, estimates that during 1921 over two million of American school pupils were tested by educational tests. The chief difference between the educational test and the ordinary classroom examination lies in the fact that the former is devised from material which has been scientifically selected and scientifically constructed.

When standardized educational tests were first introduced into the public schools, there was some thought on the part of test-makers of offering them as substitutes for the examination prepared by the teacher. Doubtless the composition of standardized tests was influenced by the inaccuracy of scoring the classroom examination, but we have not yet reached the point where we may safely discard the latter and utilize the former in its place. Much progress has been made, however, in supplying definite standards of attainment, securing objective results, measuring progress, furnishing bases for classification, and diagnosing individual difficulties of pupils.

As was pointed out in a previous article by the writer,* tests of general intelligence are used to invite attention to different degrees of mental ability. Educational tests, on the other hand, are used to indicate the tools and methods necessary to meet these different degrees fairly and with understanding. It is an established fact that a child may be superior in mental ability and not perform well in school subjects; likewise, a child may be of normal intelligence and perform exceptionally well in his school work. These facts considered, the two types of measures are interdependent, and the administrator or teacher who contemplates the employment of standardized tests will do well to familiarize himself with both types of instruments.

Doubtless the worker in this field will meet with a tendency to ascribe to each of the two general types of tests characteristics which they do not possess. Either of the two, used alone, will not supply a complete measure of the child's endowment or possibilities of attainment. Before we can get a clear conception of what a child is capable of doing, a measure of his mental ability must be taken; before we can get a vivid idea of what he actually does under controlled conditions, we must measure his achievement as scientifically as possible. With the two types of measurements, we can be in a position to classify the child at that age or in that grade to which he rightfully belongs.

Types of Educational Tests.

Educational tests fall into two classifications: (1) rate tests; (2) scales. A rate test is one composed of elements of uniform difficulty, or of several cycles of uniform difficulty, and is used to determine the rate at which the work is done. The term "scale" is applied only to tests or material graded in difficulty, or quality, and used to measure degree of difficulty or quality. A "performance scale" is a test composed of elements graded in difficulty and used to determine the most difficult test material the subject can handle successfully under prescribed conditions. A "product scale" is one which measures the quality of the objective product of a pupil's test by comparison with samples of known value. As examples of these, the Woody Arithmetic Scales are performance scales, while the Ayres Handwriting Scale is a product scale.

*Measuring the Intelligence of School Pupils, The American School Board Journal, April, 1922, p. 35.

Educational tests, as differentiated from intelligence tests, have come to be known under the term "achievement tests." The score a child registers on any test is spoken of as his "performance"; when the performance is compared with norms, or average scores, for the test, it becomes his "achievement." Since all educational tests have been or are going through the process of standardization (setting up of standard scores for a given grade or age), and since they exhibit what a child actually does as differentiated from his potential ability, rightly they may be designated as "achievement tests."

There are separate achievement tests for nearly all of the subjects of the curriculum from grades one to twelve, inclusive, and many of them are supplemented by standard scores for given grades. Within the past five years so many tests have been produced that the teacher who wishes to secure a measure of her instruction frequently is at a loss to know which of a great number of tests to select. For general circulation there are now 31 tests in reading, 30 in language, 26 in arithmetic, 24 in handwriting, and 17 in spelling, and so on down the list of curricular subjects.

To choose from among the 250 achievement tests now on the market the tests which will most nearly fit the local situation is an important task and should not be undertaken lightly. The typical teacher usually has not had time or energy to go into an analytical study of test material, and such work must be undertaken by those persons, in our higher institutions or city school systems, who are engaged in this particular type of research work. Before a test is selected as the one which will fit the greatest number of demands, certain criteria for selection must be set up and followed as nearly as possible. Such criteria will include the following:

- (1) Does the test measure what it is intended to measure?
- (2) Does the test consistently measure what it is intended to measure?
- (3) Is the test well organized mechanically?
- (4) Is the test easily given and easily scored?
- (5) Is it prepared in the language of the pupil it is designed to test?
- (6) Does it yield standard scores?
- (7) Does it point the way to remedial instruction?

Before a classroom teacher proceeds to the employment of a standardized test, she should know clearly what it is she wants to measure and why. Thousands of copies of educational tests (and much public money) have been wasted by persons who look upon the standardized test as an interesting plaything. Test-makers have been partly responsible for this attitude by failing to designate what remedies are afforded by their instruments. If we are to take care of the laggards, eliminate the failures, and offer the gifted child better opportunities, we would do well to refrain from the use of any of these tests until we have satisfied ourselves that we know what it is we are about to do.

In a great many instances tests have been given, the results compared with the standard scores, favorable or adverse comment emitted, and the matter instantly dropped. In such situations standardized tests can be of no value. They must, after they have met the requirements of the other criteria, point the way to remedial instruction. They must aid also in the general scheme of reclassification, else the funds set aside for their purchase will be taken from

activities where they might serve a better purpose.

No Indiscriminate Testing.

Boards of education in certain cities and towns have seen the possibility of not only improving instruction in the schools but of saving much money through reclassification, and often have made substantial appropriations for such purposes. These board members are far-sighted and their action is always commendable. They should not, however, allow public funds to be used for indiscriminate testing; in other words, the person who expects to do the testing should be required to present to the administration a program of examining, a statement of what the materials will cost, and what may be reasonably expected from the results secured.

The writer, through experience as an examiner in the field and as an instructor of university classes in measurements, has seen the necessity of a general recommendation of certain types of tests, in order that those less experienced, or those who expect to give tests or have tests given in their schools, have a working schedule at hand. As in the case of intelligence tests, it is not likely that any two persons would agree upon an entire list of achievement tests, but it is quite possible to draw up a list of those measuring instruments which have been found by examiners to give the best returns in the greatest number of school situations.

Proposed List of Tests.

In preparing a list for recommendation, it is necessary to follow as nearly as possible the criteria outlined above, and, in most cases, only those tests which could be accepted on the bases of these criteria have been included. A few have been included because they were judged to be either excellent types of tests or the best yet offered in a particular field.

For Elementary Schools.

- Ayres' Measuring Scale for Ability in Spelling.
- Ayres' Handwriting Scale, Gettysburg Edition.
- Courtis' Standard Practice Tests in Handwriting.
- Courtis' Standard Research Tests in Arithmetic.
- Courtis' Standard Practice Tests in Arithmetic, Series B.
- Monroe's Diagnostic Tests in Arithmetic.
- Monroe's Standardized Reasoning Tests in Arithmetic.
- Woody's Arithmetic Scales, Series A.
- Courtis' Standard Practice Tests in Reading.
- Pressey's First Grade Reading Vocabulary Test.
- Haggerty's Reading Examination, Sigma 1.
- Gray's Oral Reading Test.
- Monroe's Standardized Silent Reading Tests Revised (I and II).
- Hudelson's English Composition Scale.
- Lewis' Scales for Measuring Special Types of English Composition.
- Greene's Organization Test in English.
- Trabue's Completion Test Language Scales.
- Briggs' English Form Tests.
- Charters' Diagnostic Language and Grammar Tests.
- Courtis' Standard Supervisory Test in Geography.
- Gregory-Spencer Geography Tests.
- Murdoch's Scale for Measuring Certain Elements in Hand Sewing.
- Goodspeed-Dodge Preliminary Judgment Test in Home Making.
- Van Wagenen's American History Scales.
- Harlan's Test of Information in American History.
- Upton-Chassell's Scale for Measuring Habits of Good Citizenship.
- Seashore's Measures of Musical Talent.
- Stenquist's Mechanical Aptitude Tests.

Each of these tests affords a certain type of measure and, although in some subjects there are several tests listed, there are no duplications. The Curtis Practice Tests in Arithmetic, Handwriting, and Reading, although rather expensive as compared with the other tests, are included because of the certain definite advantages they possess over any other type of test. They have not only been found to greatly improve instruction but they help to eliminate waste in the classroom, provide a course of study in each subject covered, and greatly lessen the work of the teachers. Gray's Oral Reading Test is the only individual test listed, the Upton-Chassell Scale is a chart by which the habits of good citizenship can be measured, and the Seashore Measures of Musical Talent come in the form of records for the phonograph.

For Secondary Schools.

Hotz's First Year Algebra Scales.
Minnick's Geometry Tests.
Thurstone's Vocational Guidance Tests.
Downing's Range of Information Test in Science.
Van Wagenen's Reading Scale in General Science.
The Iowa Physics Tests.
Rivett's Time Limit Tests in Chemistry.
Buckingham's Extension of the Ayres Spelling Scale.
Briggs's and Kelley's Sixteen Spelling Scales.
Monroe's Silent Reading Test III.
Briggs's English Form Tests.
Abbott-Trabue's Exercises for the Appreciation of Poetry.
Hudelson's English Composition Scale.
Lewis' Scales for Measurement of Special Types of English Composition.
Greene's Organization Test.
Trabue's Completion Test Language Scales (L and M).
Wilkins' Prognosis Test in Modern Language.
Handschin's Modern Language Tests.
Henmon's French Tests.
Henmon's Latin Tests.
Blackstone's Stenographic Proficiency Tests.
Cody's Commercial Tests.
Thurstone's Employment Tests.
Barr's Diagnostic Tests in American History.
Van Wagenen's Reading Scale in History.
Murdoch's Scale for Measuring Certain Elements in Hand Sewing.
Goodspeed-Dodge Preliminary Judgment Test in Home Making.
Seashore's Measures of Musical Talent.
Stenquist's Mechanical Aptitude Tests.

It will be seen that some tests appear on both the elementary and secondary lists. This is necessary because of the fact that several of the tests carry over into the high school, notably in the subjects of home economics, music, and mechanics, but especially in the subject of English.

One of the most noteworthy features of recent test-making is the production of prognosis tests. These are designed to test the qualifications of a pupil who must enter or indicates a desire to enter a course for the first time. No doubt instruction has been greatly hindered by the necessity of attempting to teach pupils who have no particular aptitudes in certain fields of endeavor, and prognosis tests will help to classify and eliminate students who cannot profitably undertake the work proposed. Examples of tests of this kind are the Thurstone Vocational Guidance Tests, the Wilkins Prognosis Test in Modern Languages, and the Stenquist Mechanical Aptitude Tests. Closely allied with these are the Seashore Measures of Musical Talent.

Need for Final Measures.

As was pointed out earlier in this article, no general substitution of standardized tests for final examinations can be made. The standardized test is designed to measure progress and is best worked out in the practice tests devised by Curtis. There is a great demand, however, on the part of those interested in testing for a type of test which may take the place of the ordinary classroom examination.

So far the nearest test-makers have been able to come to the realization of this substitution



J. O. ENGLEMAN,
Formerly Superintendent of Schools,
Decatur, Ill.
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lies in the production of the "true-false" and "yes-no" examinations which first gained recognition in the Army Intelligence Examination Alpha. These tests embody a series of questions or statements covering the subject-matter in the course, which are to be answered by the simple expedient of underlining the proper word which indicates the truth or falsity of a statement, or by answering a question correctly by a positive or negative reply. The pupil does no writing but simply checks the correct answer if he knows what the correct answer is.

Advocates of this type of examination have expressed themselves as being confident that a satisfactory measure of final achievement can be secured through the use of them. The main objection offered, however, is that they do not cause the pupil to exercise his reasoning powers to the high degree desired. Further, the questions or statements may not sufficiently cover the subject-matter taught during the term or semester to serve as a final summary examination, and the test may become so casual that the pupil will be tempted to guess at those answers of which he is not sure.

To take care of the element of guessing, it has been proposed that such a test be scored by subtracting the wrong answers from the right answers. That is, if there are fifty questions, and a pupil answers twenty correctly and fifteen incorrectly, his score for the test will be 20 minus 15, or 5. Such a system can work no damage if the purpose of the test is simply to secure comparative measures of the achievement of different pupils in a group. But the score of 5 does not indicate how much of the total examination the pupil was able to do successfully. Perhaps it would be better, if such a test is used, to count only those items which the pupil has answered correctly, whether he has guessed at them or not.

Following this last-proposed plan, it will be essential that when a teacher makes up a list of true-false statements for the final examination she make a very careful selection of material to be incorporated in the examination and of sufficient number to cover the most salient features of the term's work. It will be necessary, however, for her to estimate the time each statement will exercise or command and to limit the number to those which she may reasonably expect to be answered in the class period.

Doubtless this scheme of substitution will be improved upon and we may look forward to the time when the burden of marking final examination papers will be so materially reduced that it may be faced with pleasurable anticipation rather than unqualified reluctance. All the

tendencies in present-day test-making are toward the liberation of the teacher from the grind of marking innumerable test and examination papers and themes, so that she may devote more time to profitable instruction.

Preparing to Test Pupils.

Those persons who contemplate the inauguration of a testing program should set down as the first item in the budget the cost of books treating the general subject of testing. Those books should include: Terman's *The Measurement of Intelligence* and *The Intelligence of School Children*; Monroe's *Educational Tests and Measurements* and *Measuring the Results of Teaching*; Wilson and Hoke's *How to Measure*; and McCall's *How to Measure in Education*. The first four are published by The Houghton Mifflin Company and the last two by the Macmillan Company. Rugg's *Primer of Statistics*, soon to come from press, should be added, as should the *Bibliography of Tests for Use in Schools*. The latter is published by The World Book Company and is sold at ten cents a copy. It will supply the names of practically all the publishers of tests listed in this article.

There is no such thing as too much preparation for a testing program. The work is of such detailed character and the problem of such great importance that only those who are in entire sympathy with the cause of school progress through the introduction of scientific methods should undertake the task of measuring ability and achievement. It is the only way to be fair to the school pupil and give him that democratic freedom about which we expatiate so freely.

THE CHICAGO SCHOOL BOARD DISGRACE.

It is with a feeling of intense regret that the disclosures in the school administrative scandals of Chicago are received by the school public of the country at large. The prestige which attaches to a large metropolitan center not only grows out of its commercial and financial relations with a surrounding country, but also because a widely circulated public press acquaints a large reading constituency with its civic and social activities as well.

Thus, the larger center of population occupies a place in the thoughts of those who reside in the smaller units. The great metropolis of the mid-west which leads commercial enterprise and importance may also be expected to set the pace in the progressive administration of a school system. A people that is strong in moving the wheels of commerce and industry, may be presumed to be equally effective in the pursuit of the higher purposes and aims of human existence.

The revelations made in Chicago in recent months hang like a dark cloud over the school administrative record of that city. The charges made are to the effect that the late board of education had lacked both in integrity and efficiency, and had stooped to the lowest methods in the exploitation of public funds for selfish ends and purposes. Whether the charges will finally be sustained remains to be seen.

The indictments made by the grand jury include such school officials as the following:

Edwin S. Davis, former president of the board of education and now a member of that body, indicted for misconduct and malfeasance.

Albert H. Severinghaus, former vice-president, and now member; charge, misconduct and malfeasance.

William A. Bither, former attorney for the board of education; charge, malfeasance and conspiracy to defraud.

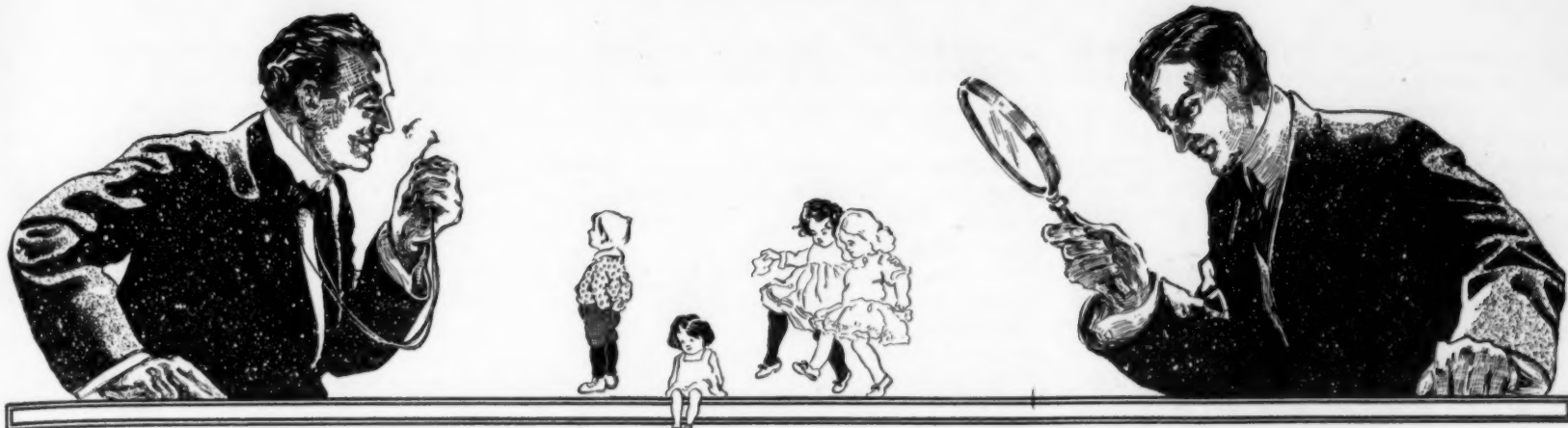
Charles J. Forsbeck, business manager; charge, misconduct and malfeasance.

Fred W. Krengle, assistant business manager; charge, conspiracy to defraud.

Fred Sadler, efficiency engineer of the board; charge, conspiracy to defraud.

Raymond J. Offlighter, member division plan of the board; charge, conspiracy to defraud.

(Concluded on Page 130)



Are the Schools Giving the Children a Square Deal?

Chas. A. Wagner, Superintendent of Schools, Chester, Pa.

In a certain school system at a rather recent promotion period, a certain percentage of promotions was attained. This percentage was rather high, hence the system regarded itself with a large measure of complacency. Was not the percentage of promotions 85? Is not that high enough to satisfy the demands of rather rigorous expectancy? The failures were but fifteen per cent. That does not seem high when poor attendance, defective children, floating population, observation of quarantine requirements, and what not are borne in mind. But Henry Fidler's case was chosen for a special study. He was but one among the fifteen per cent of failures; why study his case and not all the others also? Lack of time and office help precluded the study of all the cases, but a vague awareness somewhere in the teaching corps that Henry Fidler's was different from a number of others served as the impelling incentive to the study of his case.

Henry Fidler's Case.

Henry had failed to pass in three of his subjects and was therefore not recommended for promotion to the next grade with his class. After all, Henry was but one of the total number of failures. He was in apparent good health. He never complained about illness. He was up to the average in docility and obedience. He never gave the teacher any trouble in discipline. His teacher this term chanced to be new in the system, but had heard during the term that Henry was regarded as a dull pupil. Hence she was not surprised when she found that Henry did not pass and could not be promoted.

When she reported her failures to the principal he received the announcement of Henry's failure with the remark, "Henry failed last year also." The teacher was new, had had no previous teaching experience, her room had been overcrowded, apparently the principal conceded that no blame rested on her, hence the case might be passed over as one of the unavoidable cases of failure.

But wait. The young teacher was aroused by that entirely mechanical utterance, "Henry failed last year also." She was new and young. She did not venture to suggest to this experienced principal the daring thought which rose in her mind. She would consult her supervisor. At her first opportunity she conferred with her supervisor by starting a discussion about standard tests which led to the inquiry, "Is any effort ever made in this system to study the cases of failure in one promotion period to reduce the failures in the next promotion period?"

The supervisor responded to the challenge and replied, "Will you help me to look up the records of all the pupils who failed in our last

promotion?" The compact was made. The permanent record cards of all the failed pupils were secured from the files. Of 701 cards needed, it was found that only a short record or only a very incomplete record was available for 270 of the pupils; the remaining 431 cards contained the complete school records of 431 children who had failed.

Henry Fidler's failure thus led to the study of the entire school history of an entire set of failed children to get light upon an effort to help these children to succeed in the next examination. Is such a procedure usual? Is it required of teachers and principals? Does not the high percentage of promotions act as a silencer of doubts or questions about the responsibility for the failures?

The Complete Situation.

The entire number of failures in the system at that promotion node was 1,276 pupils. From these 1,276 the teachers and principals selected 575 to be given a chance to recover some part of the lost opportunity by special schedule provisions. That is, the pupil weak in arithmetic is put into more than one arithmetic class according to need, and is excused from some other subject where he is quite up to the standard for his grade.

As already stated, after the 575 had been chosen for this special effort, there remained 701 non-promoted pupils for whom plain repetition of the work was the only opportunity possible: these children must all be in school by requirement of the compulsory attendance law. The town could not afford any other school than the one already in operation, and that school was doing its best to suit the average child. Thus the 701 pupils were "repeating," each taking a seat, a set of books, and a share of some teacher's time. "To what advantage?" some one asks. Let the facts answer the question.

When the 431 record cards had been examined and the figures tabulated this is what appeared:

Number of pupils in group	Number of previous failures (each)	Total number of failures previously (group)
106	1	106
143	2	286
44	3	132
49	4	196
22	5	110
24	6	144
13	7	91
13	8	104
7	9	63
3	10	30
5	11	55
1	12	12
1	13	13
431		1342

(That these figures were available was due entirely to the foresight of previous superintendents and to the fidelity of previous teachers who had faithfully kept the records, probably without any perception whatever of the value of their service.)

The tax-paying public has a right to ask us whether this repeating is wise or whether we are doing it because we know nothing better to do. Parents have a right to ask, "Can these children be given some kind of education other than the education in 'failure'?" The children as adults will be sure to ask and will have the right to ask, "Was I not defrauded of my right to an education? It is true I was sent to school long enough and steadily enough, but the school neither succeeded in teaching me anything that other children learned nor tried to find something that it might have taught and that I might have learned." These are grave moral accusations, if true.

Among the 431 there were 32 that would probably have been called defective, but the rest were all children who presumably would grow to manhood and womanhood and would be entrusted with the privileges and responsibilities of adult citizenship. They had sufficient sensibility and intelligence to feel such an accusation as has been attributed to them even if they might not have framed it in just the words here used. Henry Fidler had failed six times before.

Questions Which These Facts Suggest.

Would such a condition be permitted to arise and to persist if the facts were actually known? Would teachers and superintendents allow it, or is the complacency following from high percentages of promotion the sedative which has caused the condition to be rather sleepily regarded? Are all or many other school systems attaining high percentages of promotion and are they failing to ascertain the actual facts concerning the failed pupils because the promotions are so gratifying?

How many school systems have continuous school records for a period of years long enough to include the present school enrollment? The system under consideration had such a record for an even longer period else this study could not have been made. Are such records worth the time and labor needed to keep them? Should all systems which are not keeping such records start to keep them, not only in towns and cities but also in the county and township schools of all the states? The answer must be "yes" if school systems intend to be answerable for their full duty to the child.

Should the system of records be uniform and transferable, so that the child's entire record

may accompany him as his parents move from place to place? Does not the fact that records of 270 pupils were not attainable prove that school systems cannot discharge their full obligation to the child? Although school systems cannot consciously be complementary to each other, they should be potentially complementary and supplementary.

The child's destiny is citizenship of the United States, and all school systems proclaim the preparation for such citizenship as the aim of their effort. Surely it cannot be claimed that there is intelligence nor cooperation, much less complementary action, while there is no effort to make it possible to translate the records of one school system into terms of other school systems, so that whatever success or failure one system has wrought with any child may be available to other systems into which the child may be admitted for the selection of matters to stress or matters to omit or matters to introduce by reason of the child's record in other systems.

The National System of School Records and School Transfers needs no other argument to substantiate itself than this single consideration: complementary action between school systems will be possible if the transfer be altered so as to give the system which the child is entering such information as the system needs to avoid failure and to insure success. The form suitable for this purpose will suggest itself when the obligation to render the service is ready to prompt the act.

Drawing Lessons Out of Failures.

If each school system dug out the facts, would the condition last long? Would not the necessary measures for their amelioration be sought and found? Would not parents, teachers, communities be aroused if after each promotion period they were told just how many failures had been suffered by the failed pupils? The case under study here represented both the 1,276 failures as listed on promotion day, and the total of 1,342 previous failures of the 431 pupils.

Indeed they represented more failures than that: they represented any previous failures there might have been among the 6,224 pupils of the system who were promoted, of whom at least seventy-four per cent had failed at some time or other as we are shown in Dr. Ayres' "Laggards in Our Schools," page 147.

If time and assistants had been available so that the complete record of the 8,500 pupils could have been summarized, the totals of failure in the school system would have been even larger. Has any school system ever computed the total failures recorded against its entire enrollment during the total attendance? The writer knows of none. He has never heard the question asked nor any intimation that such a question might have value, if its answer could be ascertained.

As long ago as 1909, Dr. Ayres wrote, page 7 of foregoing citation, "We must have better school records and we must learn to interpret them more intelligently. It is far from creditable that in hardly a city in the country can the school authorities tell how many pupils begin school each year, or how fast they advance, or what proportion finish or why they fall out, or why they lose time."

It would be interesting and illuminating to know how many school systems are still running and subject to the shortcomings specified by Dr. Ayres. If there are many who are now keeping the records suggested, not many seem to be interpreting the records fully, else what means this silence about the significance of records of failure as a source of guidance toward the modification of courses and kinds of schools? Fail-

ures within the school could long ago have suggested modifications of courses and methods which have been arrived at otherwise but at a terrific price.

Thomas Carlyle wrote in "Sartor Resartus" (page 133, Funk & Wagnalls edition), "That there should be one Man die Ignorant who had capacity for Knowledge, this I call a tragedy, were it to happen more than twenty times a minute, as by some computations it does." Every child that might be promoted and is not promoted enacts such a tragedy in that period of his existence. It is not the single tragedy of dying ignorant, but the recurring tragedy of knowing less than he might have known at each returning promotion day that is here deplored and protested against!

What number of failures should be allowed in the regular school before assignment of a different course shall be required?

The table of failures presented shows previous failures up to twelve and thirteen; the addition of the failure in the last promotion advances these totals to thirteen and fourteen. Some steps of the work had been repeated five times, and the pupil pushed on because of sheer animal size and disgust of a teacher. These facts raise the question, How many failures constitute an indication that the child will never be able to do certain work over and through which he has gone repeatedly? Dr. Goddard informs us, page 50, "Human Efficiency and Levels of Intelligence":

"But experience has taught us that if the mental level is as much as three years lower than the chronological age, it is practically safe to assume that arrest has already taken place and that the level will never be higher, or at least not significantly so." Dr. Goddard is speaking of mental level as determined by an intelligence test and not a standing to be assigned to an examination or school test.

If a three-year retardation at school has any significance which even resembles the significance of a three-year level of intelligence below chronological age, just think what judgment is passed upon a school system which permits children to mope and muddle on up to nine and ten years of retardation in intelligence level below chronological age, without raising a protest or voicing a demand and starting a compelling agitation for legal and statutory provision for modification of schools adapted to the needs of these special cases! State departments of education have here one of their most valuable opportunities.

To secure the kind of instruction, the wide diversity of equipment, the isolated position, the central situation, which such schools will require, calls for the ample resources of the state. Schools for counties or sections of counties, to serve larger areas than boroughs or townships, will alone meet the need. Ere the state or the state legislature will heed the request or be moved to supply the need, school districts must adduce the facts which incontrovertibly prove the need. Not percentages of retardation found in other schools or school systems, but the actual conditions now existing among the children now in schools of the state, constitute the irresistible demand. It is the fraud and deprivation which school systems are imposing on this group of children that calls loudly for protest, and still more loudly for amelioration.

Value of Adequate Records.

How will the benefits of such amelioration distribute themselves? Should the work of investigation of each list of failed pupils in each school system be carefully done and the results be given state-wide publicity, so that the aggregate of failures recorded by the aggregate of en-

rolled pupils for each eight-year period could be counted, it would make possible the complete determination of the proportion of children who need to be given their chance in special schools. A year or two of such publication and agitation would create the sentiment to secure the legislation. Who would benefit?

First, these children who have amply demonstrated that they cannot get anything from the regular school.

Second, the pupils who can secure benefit in the regular school, because the children who get little or nothing are separated and the processes of the school can go on at the natural pace instead of being slowed down without benefit to the slow and with distinct and measurable loss to themselves.

Third, the cost of the regular school could be reduced and the value of the product increased. An even pace at a higher speed would carry attainment and development further in the same time than is now possible with the uneven capacities thrown together in grades and classes.

Fourth, the opportunities of the children who remained in the schools, the eighty-five or ninety per cent, would be increased and varied by multiplication instead of by addition, since to do equally well in a group of more capable competitors requires higher effort, just as the two-minute trotter can easily win a race if none but three-minute steppers are in the field against him.

Fifth, the vitality and nerve energy of the teachers would be conserved: not work but worry saps vigor and vitality.

Sixth, the children in the regular school would see and hear and develop the expectation of success, and the children of the special school would have the same experience. In addition, the latter would be saved from the formation of bad habits and from the attitude of making an effort pitched in the key of expected failure.

Therefore, to give both groups of children their fair chance, the chance in a minimum of time to acquire the knowledges and skills of which they are capable, the schools must show by their records how far they are at present falling short of the attainment of that end, and hence, how far they are falling short of doing their full duty.

"All the children of all the people" are to be educated, as William Hawley Smith expressed it so cogently and so completely. Those for whom the present school can care, by any reasonable modification, should continue in the regular school, because they there find their fit opportunity. When our school records are complete and well kept and enable us to determine what is each pupil's record of progress or failure, we ought to be able to do more than merely disclose those two facts.

The disclosure should stir us to action, not merely stir within us regret at the state of affairs. We ought to become sorry enough to join in the effort to better conditions. We can help to start and to keep records that will make the facts ascertainable. We can let the facts be communicated to the children, to the parents, to the entire community. We can show what the facts indubitably show. We can also declare the remedy which is imperatively needed. To do less and to be satisfied with less is to continue the tragedy of non-promoted children. It is to be a silent partner in the process of supplying to both groups of children less than their right, less than their racial inheritance, and it is to hinder and delay the day when the United States may step to a level higher than a nation of sixth graders.

(Concluded on Page 129)

Small Town Medical School Inspection

Don Harrington, Superintendent of Schools, Albion, Mich.

Within the last thirty years there has come to be a very definite belief on the part of teachers, doctors, and others familiar with child life, that the mental efficiency of a child is closely wrapped up with the physical and that a child cannot do his best school work when suffering from any physical handicap. Of 559,863 school children examined in nine American cities, 65 per cent had one or more defects.

Further, the modern theory of microbic cause of disease and the belief that most disease is spread by social contact has forced the public to the conclusion that the unsupervised public school is a constant source for spread of disease and that the State is bound to protect the children entering from these dangers. Seventy per cent of deaths in the United States are due to contagious disease and the vast majority of this contagion originated in school.

The argument for health work in the schools is generally summed up as follows:

Attendance at school is compulsory. It is a matter of justice to protect the child from infection.

It is a wise thing economically because a child who enters life physically handicapped is an economic loss to the community—he becomes a liability instead of an asset.

It is the most efficient means of controlling communicable disease.

The Experience in New York City.

New York was one of the first cities to undertake to solve this problem in 1896. The department of health made an investigation to ascertain the part played by the school children in the spread of contagious diseases.

The investigation showed that a great number of the children absent from classes were sick with contagious diseases and that they had been directly infected in schoolrooms. It was also found that the children had continued in school when a member of the family was at home ill with some contagious disease. Examination of children returning with slight sore throat were found infected with diphtheria. Investigation of other diseases brought forth similar conditions.

In March, 1897, an experiment with skilled medical inspectors was started. The first year these inspectors excluded 6,829 cases for various infections. In 1902 a general inspection of children's eyes was begun; 55,470 children were examined. Twelve per cent were found to have contagious ophthalmia.

This revealed another field of activity and the work grew so rapidly that a reorganization of the original plan was necessary. At this time it was found that the doctors alone could not handle the situation and a corps of nurses was added to make follow-up calls and cooperate with the physicians and the homes. From this beginning has grown the system of medical inspection in the schools of New York City.

This plan was instituted almost simultaneously in Boston and in 1906 a law was passed by the legislative assembly making medical inspection in schools mandatory. This law provided that every city and town in the state should appoint a school physician. This appointive power was vested in the school trustees, except where the board of health had previously appointed such an officer, and in such a case they were to continue to exercise control. The weakness of the law rested in the fact that the appropriation could be controlled by the local authorities and when no appropriation was made, as was the case very often, the law was inoperative. As a result the law was repealed.

About this time the work was instituted in the city of Cleveland, and in Chicago, and gradually spread to all parts of the United States.

The facts revealed by the recent drafts aroused the public to the need of making the work more effective and as a result the various states enacted laws encouraging and requiring health work.

Who Shall Control?

This took the form of child hygiene bureaus under the control of the state board of health, and health departments under the direction of the state department of education. There seems to be some uncertainty as to whether this work should be under the direction of the health or the school authorities, as shown by the practice of the legislatures. (1) The following extract indicates the present legal status of medical inspection in the United States in 1919:

"The several child hygiene bureaus or divisions are as a rule established in the state boards or departments of health. But in some cases this work is administered by the department of education, and in a few instances by special independent boards.

"In twenty-eight states the child health work is administered by the state boards and departments of health. In two states, Colorado and Utah, by state educational authorities and a board of control; in Nebraska by the state department of public welfare; in New Hampshire by the state board of charities; in Delaware by an independent commission.

"School medical inspection as a rule is carried on under the direction of the state department of education cooperating with the state department of health, or local health authorities.

"Twenty-nine states and territories have laws on school medical inspection which designate some state agency to administer the law.

"In fifteen states the departments of education and health cooperate in the administration of the law. In six states it is administered by the department of education and in eight states by the boards of the department of health.

"In nine states with medical inspection laws no state authority is designated to administer the law.

"In three states authority is given to local units to employ public health nurses but no reference is given to school medical inspection.

"The six states in which the law is administered by the department of education are: Arkansas, California, Colorado, New Jersey, Rhode Island, and Wyoming."

In Michigan a law was passed in 1919 providing for a bureau of child hygiene and public health nursing to be administered by the state department of health. There is no provision in the state law for medical inspection except session laws 1919, No. 274. This establishes compulsory physical training in all public schools of the state but specifically provides that nothing in the article should be construed to authorize compulsory physical examination or compulsory medical treatment of school children. There is no provision against inspection of those who do not object.

Where the law is administered locally it is generally done by school authorities. This is true in twenty-two states out of thirty-four.

The law varies very much in scope; in twenty states it is mandatory; in some it is mandatory for certain classes of cities.

The Scope of Medical Examination.

The extent and character of the medical examination vary from specifying that the teacher

shall test vision and hearing to a complete physical examination (including dental) by a medical inspector or dentist, and the mental examination of those who show signs of mental defects. There are eighteen states in this latter group. In five states it is the duty of the teacher to make the examination.

In 1920 the bureau of education received 4,016 answers to questions concerning health education and medical inspection. This report showed only 1.9 per cent of schools reporting having medical inspection.

We now come to the question, What is the scope and meaning of medical supervision for school children? (2) Ayres has defined medical inspection as follows:

"Medical inspection is an extension of the activities of the school in which the educator and physician join hands to insure for each child such conditions of health and vitality as will best enable him to take full advantage of free education offered by the state.

"Its object is better health conditions among school children, safeguarding them from disease and rendering them healthier, happier and more vigorous.

"It is founded upon a recognition of the intimate relationship between the physical and mental condition of the children and the consequent dependence of education on health conditions."

The scope of the work as developed up to the present time is as follows:

1. Thorough sanitary supervision of all school buildings.
2. Intelligent supervision of classroom conditions.
3. Full-time service of medical inspectors qualified to discharge the sanitary and medical duties of school physician.
4. Full time of school nurse.
5. Facilities for dental inspection.
6. Provision for free treatment where necessary.
7. A mental examination of all children who fail to make satisfactory progress in school.

Medical Inspection in Michigan.

As I have already explained, Michigan has no mandatory statute providing for this medical inspection, but in 1921 the state legislature passed an act legalizing the employment of a school nurse by the board of education. Previous to this act the various school boards of the state, where the people desired it, had already employed school nurses and paid them out of the general fund. All the larger cities and many of the smaller ones have taken this means to advance the health interests in the community.

The following towns below twelve thousand population have employed school nurses to my knowledge. I was unable to secure any authentic data on this question:

Grand Haven, Benton Harbor, Cadillac, Greenville, Big Rapids, Albion.

In each instance their organization and plan of procedure is about the same. I will give in detail the situation in Albion, Michigan.

Albion is a town of 9,000 population, situated in the midst of a rich agricultural district, located on the Michigan Central Railroad between Detroit and Chicago, about 90 miles from Detroit and 190 miles from Chicago. There are a number of factories manufacturing principally automobile parts and other foundry products. There is a mixed population consisting of approximately 6,000 native-born whites, 1,000 native-born colored and 2,000 foreigners, mostly

Russian and Italian. The people are all fairly well housed and up to the time of the recent depression we had comparatively few dependent on charities or special help.

There is a well organized school system with 1,800 children enrolled. These children are housed in three large centers and two small school units.

The health department is vested in the city commission, the mayor being president of the board of health. This board employs an osteopath physician as health officer at an annual salary of \$200. His duties are prescribed by the state law. He has tried to exercise control over quarantines and contagious diseases, milk inspection and meat and food inspection.

How Contagion is Fought.

In regard to contagious diseases the procedure is as follows: When a physician in the performance of his professional duties finds a case of contagion, he notifies the health officer, who notifies the chief of police to go and place a quarantine sign on the house, and he also reports to the state department of health. Sometimes he also reports to the office of the superintendent of schools. This procedure is typical of Michigan small cities, and it is evident that if anything constructive is done for the children, it must be done by the school authorities.

In the spring of 1919, at the request of the Federated Woman's Clubs of the city, the board of education employed a school nurse to take charge of the health work of the Albion Schools, and she began her duties in September, 1919. She is employed for a year of ten months, hence the work is neglected when school is out. At present the work is in charge of a graduate

nurse who has specialized in diseases of children and public health work. A brief description of the routine work of this nurse during the school year of 1921-1922 will give a clearer idea of what is being accomplished in this field.

Duties of the Health Nurse.

The nurse is on duty five and one-half days each week and more if an emergency arises. She visits the three large school centers daily and the two smaller units about twice a week. Her program is as follows:

In the morning she reports directly to her office in the central building and remains until 9:00 A. M., taking care of emergencies, examining children that the teachers suspect of illness, readmitting pupils who have been out for illness, receiving reports of absentees. At 9:00 she goes to the second center and follows a similar routine. At 9:30 she goes to the third center and follows the plan followed at each of the other buildings. For the remainder of the forenoon she makes physical examinations, gives health talks and makes emergency calls in the neighborhood. In the afternoon she makes home calls and cares for emergencies.

In addition to the school nurse, a physical director supervises the play and recreation and corrective exercises of the children, and one trained teacher is employed who gives what time is necessary to mental examination of children who are making decidedly slow progress in school.

During the year 1921-1922 the nurse has made 5,024 examinations; advised treatment of 451 cases; has made 575 visits to homes; given minor treatment to 433 children and made 210 health talks.

General Principles in the Selection of High School Textbooks

George A. Bassford, Principal of the High School, Ashland, Wis.

Statement of Problem.

Considering the high school as a unit in itself the final word in the approval of textbooks must of necessity be given by the principal. In relation to the school he is the "generalist" passing upon the work and recommendations of his specialists. In relation to the superintendent of schools the principal assumes the position of specialist, reporting to his "generalist."

Acting in these two capacities the principal must give general directions to his staff of teachers in directing them in their task of assisting in the selection of textbooks, and convincing evidence to the superintendent of schools of the correctness of recommendations made to him.

It is the opinion of many from whom I have gathered suggestions in this study, that some suggestive criteria to use as the basis of an examination of high school textbooks would be of assistance.

Sources of Information.

The sources of information are limited indeed. There are two books written on the subject. These are helpful. Then there are a number of score cards for individual subjects.

But these score cards represent too involved a procedure for a principal's use. He must get the essential data before him, in a comprehensive manner but in a minimum of time and effort. I therefore endeavored to glean from a number of personal sources the essential points to be considered by a principal in passing judgment on a text.

No effort has been made to list these criteria in order of relative importance. In truth I do

not believe that I am capable of doing so. Also, were I able so to list them for use in judging one text, I feel certain that I would change the order in judging another.

Some of the principles listed require explanation to make them clear. Many of them require no explanation.

General Principles to be Observed in the Selection of High School Textbooks.

1. Have clearly before you, in written form if possible, the principal specific aims and objectives of the course for which the text is to be chosen. Are these aims and objectives similar to those of the author?

2. Have clearly before you the relative importance of the several aims and objectives. Has the author followed this order in his treatment of the subject matter of the text?

3. Read the preface to see what the author has to say of his book. If the book contains an introduction be sure to read it also.

4. What has the publisher's representative to say of the book? A reliable bookman usually has important information relative to the purpose, plan and use of the text.

5. Has the author taken cognizance of the findings of scientific investigations in the field for which a text is under consideration?

6. Has the author followed a sound psychological method of presentation of the subject matter in view of the age and development of the pupils who are to use the text?

7. Does the book meet the needs of the unit of supervision? A text suitable for a closely supervised city system may not be adequate for an unsupervised rural district.

8. Does the organization of the subject

matter meet the requirements of the method of instruction to be used? As an example, is the materials of study organized for the project method of instruction, the direct method, etc.?

9. If adopted will a special teacher of technique be needed? I have in mind a certain series of method readers for which the publishers have found it necessary to furnish instruction in the technique of teaching it.

10. Determine the number of supplementary texts available for the subject. This may influence the choice of a basic text.

11. What of the author? Is he one known to have a wide range of scholarship? Has he had sufficient contact with secondary school pupils?

11. Have the teachers interested in the selection of a text make written reports to the principal setting forth their choices and the reasons therefore.

12. If it is possible make a tentative selection and test it in a class or some group of pupils.

13. For how long a period of time is the adoption to remain in force?

14. What is the copyright date?

15. Do the problems and the examples in the text illustrate real life?

16. Is the material accurate and reliable?

17. Has the author used a vocabulary intelligible to the pupil who is to use the text?

18. Are "answers" given in the text? Is there a vocabulary? The book should conform to the technique of teaching to be employed.

19. Examine the table of contents to see the organization of materials.

20. What system of topic headings, topic sentences, etc., is employed?

21. What of summaries? Is there one at the end of each chapter or one at the end of each unit of the text? Does the plan meet your method of instruction?

22. Is there a complete index?

23. Does the text contain sufficient charts, maps, supplementary references, etc.?

24. Are any of the illustrations of such a nature as to arouse race hatred, national antipathies, to show cruelty to animals, etc.?

25. Examine the binding to see that it is strong. Remember the modern method of carrying books.

26. Be sure that the quality of paper used does not depart from those determined by recent scientific investigation.

27. Scientific study has determined the proper size of type and length of line to be used in the different grades of the school. The text should conform to these requirements.

28. Select the text as long a time as possible before it is to be used. Then place your order early. This will permit of the manufacturing of your order sufficiently early to insure proper "seasoning" of the book.

CHATS DURING RECESS.

An Illinois editor says: "Decatur is now manufacturing its own teachers instead of being forced to depend upon the state university and the state normal schools of Illinois, Indiana, and Missouri." Go to it, Decatur! Nothing like competing with the big fellows. Some day they will have to come to you for teachers!

"Some fifteen years ago the meetings of our school trustees commonly furnished more dubious comedy to an observer with a sense of the fitness of things than one of the Orpheum vaudeville programs," says a New Orleans editor. And then he argues a complete change of the present board. Does he prefer the comedy acts of fifteen years ago?

Designing and Equipping the School Cafeteria

A. E. Merrill, Chicago, Ill.

(Continued from October.)

The dining room proper should be supplied with tables, chairs and one or more water coolers. The water cooler is best centrally located and consists of a copper lined tank insulated with a 2" sheet cork. The walls of this tank are lined with 2 3/4" galvanized coils, having a total length of over forty feet. Ice is packed around the coils and the end of each coil filled with two lift-up pressure faucets. The water supply line is connected direct to the other end of the coil and a suitable drainer attached beneath the faucets. In order to make the cooler attractive, all sides are covered with white glass or porcelain held in nickel-silver framework, with the entire fixture mounted on nickel uprights. At both ends of the cooler are a series of four white glass shelves held in nickel-plated frames. These shelves are of suitable size and height to carry a standard 12"x16" aluminum tray filled with tumblers.

The tables may be either 30"x48", 36"x36" or 30"x72". The first size is most common as it is easy to handle and may be set end to end in rows of as many tables as are necessary to economize space. If ten or eleven square feet are allowed per seat, tables may be separated to allow aisles between each row. At least one broad aisle in each direction should be arranged to permit easy entrance and exit from the room. The table has a 3/4" white glass top placed on a wooden base. This base is of knock-down construction which allows adjustment of the legs to take up differences in floor levels. If a cheaper table is necessary, replace the glass top with one of wood finished with spar varnish. A well-finished wooden top table will withstand the nine months' wear and require refinishing only during the summer vacation.

Chairs should be light yet substantial. The imported bentwood answers both these requirements and comes in many designs, from those selling at \$36 a dozen to others at nearly that price for each. The best selection for wear is a 16" composition seat and a natural finish of either oak or mahogany. Domestic bentwood chairs are slightly cheaper, but their life is far less.

Although our first consideration has been given to the counter and the dining room, no less important is the kitchen. It is here, too, that the greatest errors have been made. The most common mistake is a space too cramped and equipment too meager. One large open kitchen facilitates the work and prevents loafing. Ample range and oven space is essential and when steam of fifteen pounds pressure can be obtained, a vegetable steamer and jacket kettle should be included. If this is possible two large hotel ranges and a portable bake oven are sufficient for each counter service. If not, at least three ranges and one oven are necessary. Bread and rolls are very seldom baked as the local baker can supply them at a lower cost; the oven is used for pies, cakes, puddings and pot-pie dishes.

The ranges are generally selected for gas if it is available. They should be of one of two types, either provided with concentric ring burners or a series of water heater burners across the front which throws the flame from front to back. In either instance, the top should be of polished steel plates to furnish a smooth, evenly heated top for pots and pans. Ovens should be insulated, heated by bar burners with pilot light attachment. The doors should be self-closing,

insulated and thoroughly braced. The bake oven may be either of the cabinet variety, built in one unit with galvanized insulated walls and metal shelves, or of the portable type which comes in sections and is provided with tile shelves. Gas is the most satisfactory and cleanly fuel for either of the above types. Where expense is not a consideration, the electric oven is most satisfactory and gives an even easily adjusted temperature for any purpose which is desired.

In general, ranges, bake oven, kettle and steamer are lined up on the wall of the kitchen opposite the dining room partition. A canopy four feet wide and at least 24 inches in depth is hung over them. The kettle and steamer are placed in a drip pan to catch all condensation and also to allow them to be easily flushed out after each use. A swinging arm faucet hung over them furnishes the water supply. Kettles may be of cast iron, retinned copper or aluminum. A hinged cover and large faucet should be required on each kettle.

One very excellent steamer which is perfectly safe is made in one piece either single, double or triple sections, and is fitted with adjustable swinging doors on each section. These doors when closed automatically turn on the steam. When opened, the steam is shut off and the steaming baskets are brought out of the steam on a roller carriage. This eliminates all possibility of a scalded operator or serious burns from reaching into the steamer after the baskets.

In front of the line of ranges stands the cooks' tables and bakers' table. Each should be of selected sectional maple tongued, glued and rodded together, mounted upon iron stands fitted with metal drawers and shelves. The bakers' table is also provided with metal tilting bins. A mixing bowl and hot plate complete the special equipment for the baker in this size kitchen. It is, however, necessary to provide an ice box, sink and mixing machine to be used by the baker and others, and all these should be placed as near the oven as practical.

The mixing machine is of utmost importance, as it is used by the baker for mixing cake dough, mayonnaise or whipping cream. It is of greatest service for beating potatoes and should be selected with 80 and 30 quart bowls. At least two beaters, two whips, one dough hook and a puree brush are the needed attachments. A convenient location is at the end of the cooks' table next to the baker.

A general improvement is noticeable in the construction of stock service refrigerators of all makes, and it is possible to select all the boxes needed in the average school cafeteria from those carried in stock by leading concerns. For a model kitchen it is well to have one box 5'x7'x10' high and a second box 89"x39"x81". Both boxes have sheet cork insulated walls, respectively five inches and four inches in thickness, with oak exteriors and spruce interiors. Both boxes have slatted birch shelving. The exteriors are varnished and the interiors finished in shellac. All hardware is heavy cast brass and each hinge is fitted with a steel bushing to catch the wear. If the price of sheet cork wall is prohibitive, mineral wool can be selected in its place.

The larger of these boxes is provided with over-head ice bunker and one walk-in compartment fitted with meat racks and shelves. One

large entrance door with a self-closing catch and heavy conduit fastener opens into this room. The other compartment is filled with four service ice doors opening into a space supplied with shelves. The smaller of these boxes has six doors. The ice chamber is in the center and a storage chamber fitted with shelves surrounds this on both sides and below. These boxes are substantially made and may be used either with ice or an ice machine. Thinner walled boxes waste quantities of ice and will not hold any low temperature in a hot kitchen. The original difference in cost is quickly consumed in excessive ice bills and wasted food.

Sinks are necessary for pot washing, vegetable cleaning and glass and silver washing. These sinks should be made of galvanized iron of at least fourteen gauge. A good general size is 24"x24"x14" or 16" in depth. Edges of these sinks should be rolled over to prevent any sharp edges and the backs extended up twelve inches for a splash-back. At least one 24" or 30" drain board should be supplied for each sink.

At the end of the cooks' table an open steam table or bain-marie is provided to keep vegetables hot and ready to serve after being prepared. This is made with a copper pan stretched over ten gauge steel and mounted upon an angle iron stand fitted with one shelf. A false bottom is provided over the coils or gas burners and stone or china jars are used for containers. Over the cooks' table is hung a heavy iron bar sauce pan rack upon which all heavy cooking utensils are hung. This is made of band iron and supplied with three rows of large hooks.

Near the large refrigerator should be furnished a sectional maple cutting bench and chopping block. An average size for these is 48"x30" for the bench and 24"x24" for the block. One of the most convenient and serviceable machines should be included in every equipment and this is a chopper. This consists of a slowly rotating steel bowl in which two knives rapidly revolve. It is used for finely chopping raw or cooked meats and vegetables and does it without mashing them.

Tables and a slide are provided on the wall separating the kitchen from the counter. If only one slide is used this should be back of the pastry counter. All cutting of bread, pastry and cakes should be done in the kitchen and passed through these slides to the counter. Here, too, the preparation of salads and serving of puddings, etc., into individual dishes is done. The service ice box and a sink should be conveniently located to these tables. The sectional maple construction if possible should be maintained for all kitchen tables.

The vegetable preparation should include in addition to a maple table and a two-compartment sink, a vegetable peeler. One of these machines will soon pay for itself in saving of labor and potatoes. These come in various sizes, the 30-pound size being best suited to the single service unit.

(To Be Concluded in December)

Prof. Aiken of California says: "If the schools knew what was good for them they would employ no women teachers but those who were married and are mothers of children." We knew all along there was something wrong about our schools. But, it was left for the professor to discover just what ailed them.

SALARIES OF RURAL SUPERINTENDENTS AND SUPERVISORS.

Katherine M. Cook, Specialist in Rural Education, U. S. Bureau of Education, Washington, D. C.

During the war and the years immediately following considerable progress was made toward securing for teachers in both rural and city communities increased salaries. While the increases were largely permanent and substantial in their nature—due to the added appreciation of the importance of educational work, an element of temporariness, because of the urgent need of teachers and the added cost of living, entered into the matter also. The largest exodus of persons into other vocations and hence the most marked salary increases were apparently among those holding the teaching positions. There has been a feeling among many educators that salary increases to persons holding higher school positions such as principals, supervisors and superintendents did not keep pace with those granted to classroom teachers.

The following tables compiled by the writer set forth the salaries of superintendents and supervisors in the several States in the Union. The information was collected in 1921 and in nearly all cases refers to salaries paid during the 1920-21 school year. In a few cases 1920 data are given because no other information was available. In both tables the salaries are given in three groups as follows: County or other rural superintendents; superintendents of places of 2,500 to 25,000 in population; and superintendents in places of over 25,000 population.

In the first and third groups the information secured either through questionnaires or in laws or regulations of school boards is practically complete; 96 per cent of all counties, towns or districts having rural superintendents (or supervisors) and 81 per cent of all cities of over 25,000 are reported and included in the summaries.

From towns in the second group replies were less satisfactory, though 48 per cent of the full number listed in the 1920 census replied to the Bureau's request. The data given are, therefore, considered representative except from one state, Florida, from which only one of the 26 towns in this group reported. In all but thirteen states more than one-third of the total number of towns in this population group are included among those which reported.

Wherever possible median salaries are given. When this was impossible averages are used and in all cases they are noted. A few states have no cities of the size included in the group; this condition is noted by the use of note (2).

Population apparently influences the salary paid superintendents and supervisors in nearly all cases; rural superintendents and supervisors receive the lowest salaries; small cities are next and large cities pay the highest salaries. New Jersey, Pennsylvania and Delaware are exceptions; the median salary of county superintendents in New Jersey and Pennsylvania, and of the corresponding officers in Delaware (really employed by the state though doing work similar to that usually done by county superintendents), is higher than that paid the superintendents of smaller cities but not as high as that paid in cities of group 3, i. e., over 25,000 in population. In Alabama, Ohio and Maryland the median salary of superintendents in the first two groups is the same.

With supervisors the difference in salaries paid to rural supervisors, and to those in small cities, is less marked. Rural supervisors are relatively few in number in the majority of states but salaries paid are equal to, or above those paid, in small cities in the majority of states which reported a reasonable number in both groups. Some part-time supervisors are represented among those reported in both.

Table 1. Median Salaries of School Superintendents.

STATE	County or other rural superintendents		Superintendents in places 2,500-25,000 population		Superintendents in places over 25,000 population	
	Number reported ¹	Median salary	Number reported	Median salary	Number reported	Median salary
Alabama	61	\$2400	15	\$2400	2	\$5855
Arizona	14	2000	6	4549	1	6000
Arkansas	63	1800	6	2700	2	4250
California	58	2000	30	3317	7	5400
Colorado	63	2000	13	3000	4	6000
Connecticut	27	2550	9	3500	7	5000
Delaware	3	2000	3	1900	1	6000
Florida	54	1800	1	2250	2	3900
Georgia	155	1360	14	2730	2	5500
Idaho	44	1500	7	3400	None ²	....
Illinois	102	2600	74	2754	19	6000
Indiana	92	1500	62	2412	10	5000
Iowa	96	1800	26	3247	5	5500
Kansas	105	1340	27	2675	4	5050
Kentucky	120	1000	18	2500	4	3825
Louisiana	64	2500	3	3000	2	6500
Maine	132	2313	4	3050	3	3600
Maryland	23	2200	3	2200	2	6000
Massachusetts	77	2550	18	3437	18	4500
Michigan	80	1500	46	3029	11	5500
Minnesota	86	1800	23	3680	3	7500
Mississippi	72	2500	14	3000	None ²	....
Missouri	114	1350	24	2462	5	6000
Montana	54	1800	10	3620	1	4500
Nebraska	93	1700	9	3000	2	5000
Nevada	5	2400 each	2	3800	None ²	....
New Hampshire	57	3000	6	3570	None	....
New Jersey	21	4000	36	2850	17	6000
New Mexico	28	1800	9	2750	None ²	....
New York	197	1800	102	2500	18	5750
North Carolina	100	2000	18	2405	3	5000
North Dakota	53	1350	3	3649	None ²	....
Ohio	88	3045	61	3054	17	6000
Oklahoma	77	1400	25	2621	2	7800
Oregon	36	1500	15	2760	1	7000
Pennsylvania	66	2800	123	2773	17	5000
Rhode Island	6	1975	7	2052	4	4250
South Carolina	35	1500	6	2875	1	5400
South Dakota	55	1600	4	3058	1	4750
Tennessee	57	1500	6	1969	3	4800
Texas	148	2000	14	2990	3	6000
Utah	34	2150	2	3329	2	5300
Virginia	87	1860	4	2415	5	5000
Vermont	51	2300	5	3550	None ²	....
Washington	39	2000	18	2754	5	5800
West Virginia	55	1541	9	2700	3	5000
Wisconsin	71	1600	57	2582	8	5000
Wyoming	21	1000	5	2833	None ²	....

¹Per cent of county or other rural superintendents reporting, 96; per cent of places of 2,500-25,000 population reporting, 48; per cent of places of over 25,000 population reporting, 81.

The following shows how the percentages of towns reporting in group two are distributed by States:

Per cent reporting.	No. of States.
100	2
50 approx.	15
More than 50	6
33 1/3 to 50	12
Less than 33 1/3	13

²No towns of this population group in the States.

Table 2. Salaries of School Supervisors.

STATE	County or other rural supervisors		Supervisors in places 2,500-25,000 population		Supervisors in places over 25,000 population	
	Number reported ¹	Median salary	Number reported	Median salary	Number reported	Median salary
Alabama	49	\$1500	2	\$ 930*	11	\$2200
Arizona	None	....	None	....	5	2100
Arkansas	None	....	1	900	4	2400
California	17	2000	23	1386*	72	2820
Colorado	2	1500	9	2000	29	2042
Connecticut	None	....	None	....	41	2300
Delaware	7	2000	2	500	6	1750
Florida	1	1800	None	....	5	1200
Georgia	3	1800*	None	....	5	1800
Idaho	None	....	4	1750	None ²	....
Illinois	16	2355	17	1774	101	2000
Indiana	15	1800	35	1630	69	2300
Iowa	None	....	5	1838*	51	2200
Kansas	1	1600	20	1032*	19	2448
Kentucky	17	469	5	1170	14	1500
Louisiana	16	1530	None	....	9	1440
Maine	None	....	None	....	19	1750
Maryland	31	1600	2	1280*	7	2000
Massachusetts	None	....	None	....	125	2300
Michigan	2	2900*	17	3107*	88	2100
Minnesota	17	1800	8	2179*	23	2700
Mississippi	2	1267	5	1116*	None ²	....
Missouri	None	....	18	2476*	28	2300
Montana	11	1500	6	1236*	4	2425
Nebraska	None	....	18	1064*	18	2300
Nevada	None	....	None	....	None ²	....
New Hampshire	None	....	None	....	4	2250
New Jersey	32	2000	62	1351*	112	2600
New Mexico	4	1675	4	1527*	None ²	....
New York	None	....	16	2715*	123	2450
North Carolina	16	1800	14	1327*	10	1800
North Dakota	None	....	5	1558*	None ²	....
Ohio	214	2500	16	1542*	103	2500
Oklahoma	None	....	16	1153*	16	2600

(Table Concluded on Page 133)

The Real Work of the Superintendent

Geoffrey F. Morgan, Santa Monica, Calif.

The chief problem which every superintendent has to solve—especially the small-town superintendent—is the problem of putting first things first. Most superintendents are veritable Marthas for being cumbered with much serving. Mrs. Jones has called to know why Johnny was not promoted in his arithmetic. The voluble agent for floor oil, or textbooks, or maps, or desks is pressing for an appointment. Miss Green drops in to say that she positively cannot stand that Smith boy in her room another day. The janitor complains that the teachers tack things on the walls. The teachers complain that the janitor will not clean the boards properly. Willie Jenkins has been playing truant again, and the Jenkins family is going to have the superintendent arrested for spanking Willie. John Brown has been ruled off the squad for flunking his Latin, and the coach feels that the whole faculty is in a conspiracy to defeat his team. Some miscreant in the first grade has been putting chalk marks on the sidewalks fronting the best residences in town, and some reckless outlaw in the kindergarten has stolen a nickel.

Meanwhile, of course, the superintendent is vainly attempting to ride his own particular hobby. Perhaps it is manual training, or visual instruction, or new pictures for the high school or the grades, or printing, or organized athletics, or intramural debates, or tests and measurements, or the equipment of the playground, or better salaries for the teachers. Every school head has some especial interest in view, and is fairly sure that the world must be saved via that route, if it is to be saved at all. Some of the teachers are openly opposed to it, while more are likely to be merely indifferent. As for the town at large, it is pretty generally sure to be indifferent to anything which does not affect its own particular children or its own particular pocketbook.

Now of course all these things are necessary, or at least inevitable. The time will never come when pupils, janitors, teachers and patrons are uniformly pleased and pleasing. There will always be fretful mothers, and idle pupils, and irritated teachers, and indignant patrons, and truants and loafers and flunkers. Their numbers may be vastly reduced, of course, but the chances are that in these matters, as in the higher mathematics, there will always be an irreducible minimum. So too, every superintendent that is worth his salt must have some special interest, and most of these interests have really contributed to the advancement of the schools. Debates are a fine thing, and so are athletics, provided the schools run the athletics instead of letting the athletics run the schools. Tests and measurements still have their uses, in spite of all the abuses they have suffered at the hands of quacks and charlatans. Dramatics have a distinct place in the school work, and so have moving pictures, swings and slides, and better salaries.

The danger is that we shall allow them to become the chief business of education, or rather of superintending, instead of the side issues. It is just another case of not being able to see the tree for the leaves, or the city for the houses. For after all, these things are all secondary and supplementary to the real business of the superintendent, and that brings us to the main topic of this paper.

The real work of the superintendent is three-fold. In the first place, he must be the inspirational head of the schools. In the classroom, on the playground, and in the teachers' meeting,

his chief function is to arouse and inspire and lead the pupils and teachers who are under his direction. There are some school buildings in which the arrival of the superintendent is noted with alarm, and a significant red-ink bottle is sent from room to room as a warning to flee from the wrath to come. Nor is the agitation confined to the teachers; it is equally true that many pupils recognize in the superintendent's approach an evidence of the fact that windows have been broken somewhere, or the coasting past the Simkin's residence has got to stop, or the last intelligence test has revealed fresh heights and depths of ignorance on the part of luckless students.

No matter what the reason may be for this attitude on the part of teachers and students, the fact remains that it is wrong. The very presence of the superintendent in the room or the building should be an honest, wholesome stimulus to honest, wholesome work. If superintendents were as alert to note and approve the good work done as they are to detect and rebuke the poor, there would doubtless be more of this feeling generated by his arrival. The attitude toward the teacher should be kindly, interested, and sympathetic. If mistakes are noted, as they probably will be, they should be corrected in private with the utmost courtesy and tact. If, on the other hand, some evidences of skill and enthusiasm are observed, they should be dwelt on with hearty approval. The real superintendent seldom reproves and never bullies, but he is always quick to commend and to approve. So too with the pupils. What if the results in the history examination are a trifle scant and barren? If the pupils knew it all in the first place, there would be small reason for their being in the class at all. They that are whole have no need of a physician. Some tactful references to the mistakes, and a word of commendation for the excellencies, will afford more benefit in every way than a sweeping and vigorous condemnation.

Some superintendents make it a point, when they visit the schoolroom, to bring with them some matter of unusual interest. A specimen of botany, a curious shell, or a recent example of science or of art, will do much to arouse the interest and favor of pupils, especially in the younger classes. One superintendent brought in X-ray pictures of a broken arm. The negatives were set on the window ledge, and the pupils were allowed to walk around and get a close view of them. Of course such interruptions should not be too frequent. It would be a foolish man who broke into the work of the class every time he visited the room. The point is that the pupils should form the habit of regarding the superintendent as an interesting man, a human being rather than a disciplinary officer, and a person who is apt to contribute towards life, liberty and happiness, rather than detracting from it, as is too often the case at present.

Our discussion has been limited thus far to the classroom, but of course this is only a part of the field. For the teachers, there remain the weekly or monthly meeting, the institute, and such other gatherings as may be held; the circular letter, the special tests and examinations, and the bulletins for circulation among teachers and parents. Startling as the statement may seem at first, the fact remains that the biggest thing that any man can do for his fellow creatures is to talk to them. The great leaders and moulders of the world's thought and action have been talkers, rather than architects or builders

or painters or even writers. Today, despite the advances of art and science and religion, the real leaders and shapers of the country are the men who talk—provided, of course, that they talk to some purpose and to some advantage. In view of this fact, it is evident that the first duty of the superintendent is to talk well. In his meetings with the teachers, there should be far less insistence on the rules and regulations and routine, and far more effort to inspire the teachers with an appreciation of their opportunities and their responsibilities. If only we could get away, for a few meetings at least, from conferences and instructions on filling out the age grade table, and making the monthly attendance report, and keeping the textbooks records, and give ourselves wholly to the work of creating enthusiasm and gaining vision, what a wonderful work we might achieve! Nothing great is ever achieved without enthusiasm, said Emerson, and it was considerably more ancient authority who declared that when there is no vision the people perish. At the present time we find little of either, and even less of effort to create it. Occasionally some outside speaker goes through the ancient formula of "little souls committed to your charge," and assures his hearers that the happiest hours of all his recollection are those which he spent in teaching a district school, but of anything like real inspiration and spiritual vision on the part of the superintendent himself there is very little. And yet, if there is not much of this, all the other will count for very little. There is a place, to be sure, for some of the better tests and measurements, despite the abuse they have suffered in recent years by self-seeking and sinister college teachers. The very word *test*, in fact, like that of *gentleman*, may truly be said to have been "defamed by every charlatan, and soiled by all ignoble use." And yet the educational test will have failed of its chief value if it does not inspire the teacher to put forth greater and better directed efforts in connection with her subject. A good arithmetic test ought to stimulate wholesome rivalry between teachers and pupils, but there is little to be gained from it if it is used chiefly as an argument for or against raising Miss Jenkins five dollars a month.

The superintendent must be the inspirational head of the students as well as the teachers. The abiding force in the government and direction of any school is school spirit, and school spirit is chiefly generated and stimulated by the inspirational leadership of the superintendent. Skill in public speaking, therefore, is as important in dealing with children as with adults. Superintendents should take the pupils into their confidence, especially with regard to aims and ambitions for the schools. There can be no harm in having the superintendent outline rather fully the kind of school which he covets for the district, the kind of standards which the pupils should aspire to, and the kind of achievement which teachers and pupils alike should try to accomplish. Theodore Roosevelt coined a good term for school people when he spoke of "realizable ideals." Such ideals should be put before the minds of the children in the plainest possible terms, and if possible adopted by the youngsters themselves as goals to be attained in the course of the school term. If there were more insistence on such ideals of scholarship and conduct, and less on the noise in the halls, or the snowballing in the streets, or the chalk on the floor, or the failure in the last intelligence tests, we might hope for bigger things on

the part of the children. Not that we can ever ignore the chalk or the noise or the snowballs, but a school well grounded in the faith and well established in its standards of conduct and speech and behavior will settle difficulties of this sort without interference on the part of the faculty.

There is no part of the school work which stands more in need of these realizable ideals than the athletics. Most schools dwell on victory, and a winning score, to the exclusion of any other aim. What a chance is here for the true sportsman to imbue his pupils with standards of fair play, modest victory, and graceful defeat. Every meeting held in connection with a football or baseball game is an opportunity to present ideals of a square deal, of honest effort, and of good sportsmanship. In short, there is no event either of work or of play, which cannot be made the occasion of a brief but wholesome lesson, and an opportunity for inspirational leadership on the part of a good superintendent.

So much for the inspirational force. In the second place, the good superintendent must be the unifying head of the schools. There are many buildings with many teachers. There are many pupils of many grades, and there are many patrons, both those with children in the schools and those without. This means, of course, that there will be many persons with many ideas and aims and interest. It is the duty of the superintendent to give wise leadership to the whole, and to act as a unifying influence on all these various groups. Let us consider them each in turn.

Teachers in the first place, need to be constantly reminded that there is but one school system, and not a group of classrooms or of buildings. There must be no rivalry among grades or buildings except such as will promote the finest of work and of feeling in all. In education, the best rule is for unity in essentials, liberty in non-essentials, and charity in all things. With the best of intentions, zealous principals will sometimes arouse a vast deal of jealousy and ill-will through a too vigorous appeal to the rivalry and jealousy of the pupils or the staff. Such activity is most ill-advised, and it is the duty of the principal to eliminate it promptly and completely. The tests and measurements which have already been referred to are likely to have the same unfortunate effect. Such tests do more harm than good if they arouse ill-will or hatred between rooms or buildings or teachers. Stronger than any differences which may be revealed must be the unifying influence of the superintendent which shall serve to unite the schools in a common warfare against ignorance and indifference and neglect.

To the pupils, also, the wise superintendent must make a continual appeal for unity. Exhibits, festivals, pageants, and celebrations of various kinds are concrete methods of obtaining it. A picture exhibit, or any form of benefit which will extend to all the schools equally, is chiefly valuable for the effect it has in uniting the interests and activities of the pupils. A dramatic entertainment, in which every school has a chance to participate, does far more for the schools than a series of separate entertainments. School songs, banners, cheers, and various opportunities for expression are all helpful.

It is among the members of the school board that many superintendents find their chief opportunity to harmonize and to unify. Most school boards are instruments of at least five strings, and it is a skilled musician who can play on all of them! Or to drop the figure, each member is a strongly defined individual, and it is necessary for the superintendent to gain the cooperation of every man if the board

is to function as one body rather than as a number of separate persons.

The parents and patrons afford a fourth field for the exercise of the unifying function. No movement has carried more possibilities for both good and ill than the parent-teacher associations which have had such rapid growth in the last few years. Wisely guided and directed, they have proved of splendid service in the raising of school standards and the improving of school conditions. Care must be taken, however, that they are not allowed to wander off on false paths, and to usurp functions and duties which clearly belong to other bodies or individuals. It is the responsibility of the superintendent to see that they take up useful lines of work, that they avoid petty squabbles, and that they work for the good of the schools as a whole, rather than any particular building or group or class.

The work of the superintendent as an inspirational head, as well as a unifying head, is confined primarily to the relations of pupils and teachers, and of various groups within the schools themselves. In the third relation, however, the situation is reversed, for the third capacity in which the superintendent serves is that of an *interpreting* head, and in this office his relation is chiefly with the community, or at least between the community and the schools. We have spoken of the superintendent as the inspirational head and the unifying head; now let us consider him for a moment as the interpreting head of his system.

Most of the criticism of the schools comes from people who have little or no real understanding of their aim or scope or purpose. Manual training has had to make its way over the opposition of people who have never really understood what it was all about. Once let a school propose printing, or metal work, or agriculture, or millinery, or painting, or forge work, or anything else that is much outside the realm of the original three R's, and the voice of the opposition will promptly be heard. The fact that the objector has never been inside the present school building, that he has no children of his own in school, and that it will not affect him definitely in any way makes little difference; it is new-fangled, and he is "agin it." These conscientious objectors would matter little, of course, were it not for the fact that they are likely to mislead other and better men than themselves. For this reason, it is most desirable that the schools have someone to serve as a constant interpreter of their aims and ideals and activities. Even the school board will not be without a need of this service. Most board members are occupied with their own affairs, and while the great majority of them are faithful, conscientious men who serve their communities without hope of any reward except that of an approving conscience, they are often as much

THAT'S GILROY!

"The little town of Gilroy bonded itself for a quarter of a million dollars not long ago for better schools. Then the discovery was made that it had not provided a school gymnasium. Nobody had to argue the need; no school principal had to write letters to the papers about it; no rich resident complained about the tax troubles of those with the fat purses; no, indeed. A movement was at once started for another bond election for \$75,000 for a school gymnasium and it was carried with a whoop.

"That's Gilroy. Its chamber of commerce sends out the word to homeseekers that Gilroy does not intend to permit any southern California community, big or small, to be one step in advance of it in providing for the education and physical training of its children. And Gilroy is growing; its banks are financing home improvements and its people are enthusiastic over its future."—Santa Cruz, Calif., News.

in need of enlightenment on school matters as any other members of the community. To the school board members, therefore, as well as to the general public, the superintendent must continually serve as an interpreter.

Of course the responsibility does not end here. Once or twice each year the superintendent should appear before the Rotary Club, the Chamber of Commerce, the Thanatopsis Literary club, and every other body where good, honest citizens are gathered together, and make an earnest effort to acquaint them with the chief needs and aims and achievements of the schools under his charge. It is a short-sighted man who believes that an annual report, or any occasional and statistical document, will be of any real service in interpreting the schools to the community.

If such service as this is useful in ordinary times, it is doubly necessary and valuable in the day of the inevitable building campaign. Very few bond issues are ever defeated if the community is well informed in advance as to the need for improved equipment. The man who knows nothing more about the schools than the fact that they are calling for a hundred thousand dollars; for a new building is not inclined to have much sympathy with the project. It is the man who has heard the whole thing explained, who knows just what the enrollment is, and the course of study, and the present and future needs, who is going to be a supporter and an enthusiast.

I have put the public side of this matter first because it seems to me to belong first, but we must not think that there is not a private side to the matter of interpretation, too. Perhaps the most important phase is that of interpreting the school board and its actions to the teachers, and sometimes to the pupils too. The school board is often subjected to fierce criticism because of its failure to raise the salaries, or to build a gymnasium at the behest of an eager team. It is the duty of the superintendent to put the whole matter before teachers or pupils, to explain the shortage of funds, the need of economy, the opposition to athletics, or whatever it may be. It is not always necessary to side with the board, of course, but it is necessary to do more than merely announce that "the board won't stand for it," and then leave the indignant group to pass sharp and often vindictive criticism.

The matter of discipline is one that calls for frequent interpretation. Agitated parents protest against what seem to them to be wholly unreasonable requirements on the part of some teacher. A kindly explanation of the motives, or methods, or objectives which have given rise to certain rulings and requests will do much to smooth the wrinkled brow of care. Angry pupils sometimes give vent to fierce complaint against rules and regulations which seem to them unjust. The same explanation of the reasons for these things will generally settle the matter, since most pupils are honest enough at heart, and willing enough to comply when they understand the reason for their compliance. This is nothing more than common sense, to be sure. It was Solomon who prayed for an understanding heart, and the pupil or teacher or superintendent who follows his example may be certain to reap at least a portion of his blessing as a result.

Inspiration, then, and unification, and interpretation—these three tasks constitute the real work of the superintendent. If he can give a full measure of time and effort to these, he can afford sometimes to slacken his zeal about the spitball on the face of the clock, or even to ignore it altogether!

A Mental Survey

In the Training Department of the Moorhead State Teachers College, Moorhead, Minnesota

(Continued from October.)

T. H. Schutte, Director Training Department.

Grade VI

The sixth grade standard (median) score as given by Otis is 84, that of our sixth grade is 85. On this basis we may regard our sixth grade group as just at age. The range of scores for this group is from 42 to 147, which represents a range of mental age from 98 months to adult age, 130 being the score given for adults, while the chronological ages range from 113 months to 199 months. The median chronological age is 142 months, while the median mental age, as indicated by the median score, is 141 months. Thus we see that the median mental age falls one month below the median chronological age.

A child 121 months old chronologically made the lowest score, 42, which indicated a mental age of 98 months, while a child 146 months old made the highest score, 147, which is the adult median. Thus the chronological age difference for these two children is 25 months, while the difference in mental age is at least 118 months. The child making the highest record is surpassed in brightness by a child 113 months old, the former having an I. B. of 157, the latter an I. B. of 181.

The I. B.'s range from 32 to 181, the lowest being made by a child 15 years 5 months old, the highest by a child 9 years 5 months of age. The one making the lowest I. B. made a score of 55, while the one making the highest I. B. has a score of 138.

TABLE VI. Status of Sixth Grade Children, from Results of Otis Advanced Examination, Form A.

No. of Pupil	Chronological Age (Months)	Mental Age (Months)	Acceleration (Months)	Retardation (Months)	P.R.	I. Q.
1	127	141	14	..	68	111
2	150	119	..	31	14.8	79
3	146	131	..	15	31	90
4	151	160	9	..	62	106
5	138	171	33	..	86.7	124
6	126	163	37	..	89.4	129
7	126	130	4	..	55	103
8	172	139	..	33	12.6	81
9	127	161	34	..	87.4	127
10	146	Above 130 yrs.	Above 82	..	97.3	156
11	153	120	..	33	13.3	79
12	145	132	..	13	33	91
13	137	123	..	9	33	93
14	121	98	..	23	22	81
15	160	118	..	41	1.4	60
16	185	111	..	74	1.1	60
17	129	176	47	..	94	135
18	149	168	19	..	74	113
19	169	142	..	27	18	84
20	177	141	..	36	12.6	80
21	151	107	..	44	6.9	71
22	153	140	..	13	33	91
23	141	163	22	..	77	116
24	132	131	..	1	49	99
25	143	129	..	14	32	90
26	135	215	80	..	95.7	159
27	136	154	18	..	73	113
28	113	Above 19	Above 115	..	99.7	206
29	142	153	13	..	64	109
30	133	153	20	..	75	115

Of this group of 30 children 50 per cent are retarded and 50 per cent are accelerated on the basis of mental age, as indicated by the test, the average retardation being 29.3 months for the retardates and the average acceleration being 36.5 months for the accelerants.

On the basis of the I. Q.'s given in Table VI there are three children who reach or surpass an I. Q. of 140 or belong to the genius group; four have an I. Q. between 120 and 140, ranking as of very superior intelligence; five have an I. Q. between 110 and 120, superior intelligence; nine have an I. Q. between 90 and 110, average or normal intelligence; four have an I. Q. between 80 and 90, dullness; and five fall below an I. Q. of 80.

In other words, twelve of these children are above average or normal intelligence; nine are

average or normal; while nine are below normal intelligence.

From the P. R. column we get an excellent view of the group. The range is from 1.1 to 99.7. Nine of these children fail to reach a percentile rank of 25, that is, they belong to the lower quartile of American school children of their ages; while fifteen fall in the lower 50 per cent; three fall in the third quartile; and nine belong to the upper quartile.

Though this group of 30 children does not distribute along the normal probability curve, it is interesting to note the distribution when we arrange the P. R. column in ascending order.

1.1	This group falls in the lower fourth of American school children of their ages.	
1.4		
6.9		
12.6		
12.6		
13.3		
14.8		
18.0		
22.0		
31.0	This group falls in the second fourth.	
32.0		
33.0		
33.0		
38.0		
49.0		
55.0	This group falls in the third fourth.	
62.0		
64.0		
68.0		
73.0		
74.0		
75.0		
77.0		This group belongs to the upper fourth.
86.7		
87.4		
89.4		
94.0		
97.3		
97.7		
99.7		

Note that 75 per cent of the sixth grade pupils should exceed a score of 51; in our group approximately 97 per cent reached this mark, in fact all but one pupil reached a score of 51; 25 per cent should exceed a score of 117; in our group thirteen per cent or four pupils exceed this score.

Grade VII

The standard seventh grade median is 100; the median for our group is 97. That is, this group is practically a standard group, its median falling only three points below the standard. The range is from nineteen to 141, indicating a range in mental age from below 8 years to adult. (The low score of nineteen was made by a decidedly feeble-minded boy 18 years and 1 month chronologically age.) Barring this one case the range would be from 52 to 141. The score 52, indicating a chronological age of 9 years, was made by a boy 15 years of age.

The chronological ages range from 120 months to 192 months (217 if the above low-scoring boy be included). The median chronological age is 153 months, which is also the median mental age as shown by the median score.

The child making the highest score, 141, is 150 months of age chronologically. His score indicates a mental age of adulthood. The youngest child in the group, 120 months old chronologically, has a score of 92, indicating a mental age of 148 months, or a mental acceleration of 28 months.

Of the 33 children in this group seventeen have scores above the norms for their ages, with an average acceleration of approximately 31 months; sixteen children have scores below the norms for their ages, with an average retarda-

tion of 3.17 months (barring the 18 year old feeble minded boy). From this standpoint, then, approximately 51 per cent are mentally above their chronological ages and 49 per cent are below.

TABLE VII. Status of Seventh Grade Pupils from Results of Otis Advanced Examination, Form A.

No. of Pupil	Chronological Age (Months)	Mental Age (Months)	Acceleration (Months)	Retardation (Months)	P.R.	I. Q.
1	164	194	30	..	73	118
2	153	181	28	..	70	118
3	180	125	..	55	4	69
4	157	143	..	14	32	91
5	129	148	28	..	82.8	123
6	139	147	8	..	61	106
7	161	151	..	10	37	94
8	151	167	16	..	71	111
9	175	134	..	41	8.9	77
10	141	159	18	..	73	113
11	192	113	..	79	1.1	69
12	145	163	18	..	73	112
13	177	144	..	33	14.8	81
14	152	162	10	..	63	106
15	158	137	..	21	24	87
16	174	121	..	53	4	69
17	151	164	13	..	67	109
18	171	131	..	40	8.9	77
19	148	210	62	..	80.4	142
20	151	161	10	..	63	107
21	152	149	..	3	46	98
22	149	210	61	..	88.8	141
23	180	108	..	72	1.0	60
24	164	153	..	11	36.0	93
25	149	137	..	12	34.0	93
26	150	216	66	..	94.4	144
27	172	166	..	6	42.0	96
28	217	Score of only 9	..	0	0	0
29	160	180	20	..	72	113
30	150	124	..	26	19	83
31	165	216	51	..	76	131
32	152	195	43	..	84.4	128
33	151	199	48	..	86	132

Note that 50 per cent of the children in the seventh grade should exceed a score of 100, but in our group 16 children or approximately 49 per cent do so, and seventeen or 51 per cent fall below; 75 per cent should exceed a score of 67, while in our group 29 children or approximately 97 per cent do so; and 25 per cent should exceed a score of 133, while in our group only one child (three per cent of the group) reached this mark.

In this group the child making the highest score (141) is 150 months old. He is also the brightest child in the group, as indicated by his I. B., which is 147, and which gives him a percentile rank of 94.4.

The P. R. column shows that the pupils distribute themselves from 0 to 94.4 in percentile rank. Arranging the percentile ranks in ascending order we have:

0	These ten pupils are in the lower quartile of American school children of their ages.	
1		
1.1		
4		
4		
8.9		
8.9		
14.8		
19.0		
24		
32	These six pupils are in the second quartile.	
34		
36		
37		
42		
46		
61	These nine pupils are in the third quartile.	
63		
63		
67		
71		
72		
73		
73		
73		
76	These eight pupils are in the fourth quartile.	
79		
82.8		
84.4		
86		
88.8		
89.4		
94.4		

When we look at the group from the standpoint of I. Q.'s and follow Terman's classification, we have:

Three pupils with an I. Q. of 140 or above, genius or near genius.

Four pupils with an I. Q. between 120 and 140, very superior intelligence.

Six pupils with an I. Q. between 110 and 120, superior intelligence.

Ten pupils with an I. Q. between 90 and 110, average or normal intelligence.

Ten pupils with an I. Q. below 90, reading practically 0 in one case.

This one case only an individual test can diagnose and place properly.

Grade VIII.

The standard eighth grade median is 114, but the median for our group is only 92. This, then, cannot be regarded as a representative eighth grade group. Their range of scores is from 59 to 133, indicating a range in mental ages from 115 months to adult age. But their chronological ages range from 146 months to 191 months; thus the mental age extends 31 months lower than does the chronological age, while on the other hand adult mentality is reached in some cases.

The median chronological age is 163 months, and the median mental age, as indicated by the median score is 148 months, that is the mental age median is fifteen months lower than the chronological median.

The pupil making the lowest score, 59, is 15 years 11 months old chronologically. His score indicates for him a mental age of 115 months (9 years 7 months)—a mental retardation of 76 months. This pupil is a decidedly troublesome and undesirable pupil in school. The child making the highest score, 133, is 164 months (13 years 9 months) old chronologically. This score indicates for him a mental age of 18 years, and a mental acceleration of at least 52 months.

The brightest child in the group has a chronological age of 146 months (12 years 2 months), and a score of 131, which indicates for her a mental age of 216 months (18 years) plus. She has an I. Q. of 91.7.

Of the 22 pupils six have a mental age higher than their chronological age, the average acceleration being 31.6 months; sixteen pupils are retarded; the average retardation being 32.9 months. The range of acceleration is from ten to 70 months; the range of retardation is from nine to 76 months. We see, then, that 27 per cent are accelerated, while 73 per cent are retarded.

While 50 per cent of the children in the eighth grade should reach or exceed a score of 114, only five of this group, approximately 23 per cent, do so; 75 per cent should exceed a score of 81, but in our group sixteen children or 73 per cent do so; and 25 per cent should reach a score of 147, but in this group this score is not reached by any one.

Note the P. R. column in table VIII. When the percentile ranks are arranged in ascending order we have:

1.3	These eleven pupils rank in the lower quartile of American school children of their ages.
4.0	
6.9	
8.9	
10.6	
10.6	
11.2	
15.6	
16.4	
19.0	
22.0	
25.0	These five pupils rank in the second quartile.
31.0	
37.0	
38.0	
39.0	
63.0	These two pupils rank in the third quartile.
68.0	
75.0	These four pupils rank in the upper quartile.
76.0	
81.0	
91.7	

TABLE VIII. Status of Eighth Grade Children, from Results of Otis Advanced Examination, Form A.

Pupil No.	Chronological Age (Months)	Mental Age (Months)	Acceleration (Months)	Retardation (Months)	P.R.	I. Q.
1	155	178	23	..	76	115
2	181	147	..	34	15.6	81
3	164	216	52	..	81	132
4	154	164	10	..	63	106
5	158	172	14	..	68	109
6	153	174	21	..	75	114
7	167	151	..	16	31	90
8	191	115	..	76	1.3	60
9	182	140	..	42	10.6	77
10	161	124	..	37	10.6	77
11	157	148	..	9	39	94
12	146	216	70	..	91.7	148
13	160	143	..	17	28	90
14	163	139	..	24	22	85
15	162	152	..	10	37	94
16	175	129	..	46	6.9	74
17	179	150	..	29	19	84
18	169	160	..	9	38	95
19	158	119	..	39	16.4	78
20	184	143	..	41	11.2	78
21	177	131	..	46	6.9	74
22	173	121	..	52	4.0	70

Viewing this group on the basis of Terman's I. Q. classification we have:
One pupil with an I. Q. of 140 or above, the genius group.
One pupil with an I. Q. between 120 and 140, very superior intelligence.
Two pupils with an I. Q. between 110 and 120, superior intelligence.
Seven pupils with an I. Q. between 90 and 110, average or normal intelligence.
Eleven pupils with an I. Q. below 90, or below average or normal intelligence.

It appears from the results in Table IX that the three tests used are very reliable in ranking the pupils in their proper order and that, in general, the teachers did well in ranking their pupils.

CONCLUSIONS.

1. In Grade I there are certainly six and possibly ten pupils who are able to progress at more than normal rate.
2. In Grade II there are certainly fifteen and possibly seventeen pupils who are able to progress at more than normal rate.
3. In Grade III there are certainly three and possibly eight pupils who can progress at more than normal rate.
4. In Grade IV there are certainly ten and possibly fifteen pupils who can progress at more than normal rate.
5. In Grade V there are certainly three and possibly five pupils who can progress at more than normal rate.
6. In Grade VI there are certainly seven and possibly twelve pupils who can progress at more than normal rate.
7. In Grade VII there are certainly seven

TABLE IX.

Showing the correlation of the ranking given the pupils in the various grades by the teachers' judgment and by the results from the various tests. The coefficients of correlation were calculated by the rank difference method, and by a conversion table were converted into the Pearson coefficients. The table should be read as follows: The correlation between the ranking in Grade I of the teachers' judgment and the ranking pupils obtained from the Otis total score is .82 with a P. E. of .04, etc.

Grade	Teacher Rating of Army Total	Score	Teacher Rating and Chicago Total	Score	Teacher Rating and Otis Total	Score	Teacher Rating and Otis I. B.	Score	Otis I. B. and Army Total	Otis I. B. and Otis Total	Chicago Total	Score	Otis I. B. and Otis Total	Otis Total Score and Army Total	Otis Total Score and Chicago Total	Chicago Total Score and Army Total	Number of Pupils in Grade
1					.82	.04	.77	.05					.95	.01			26
2					.10	.24	.12						.73	.06			26
3					.07	.63	.08						.79	.05			21
4					.08	.66	.06						.84	.04			25
5	.70	.07	.62	.08	.64	.07	.65	.07	.80	.03	.60	.07	.84	.01	.84	.04	27
6	.65	.07	.30	.11	.66	.07	.81	.04	.79	.05	.72	.06	.81	.05	.84	.06	30
7	.75	.05	.67	.06	.61	.07	.60	.06	.81	.04	.74	.08	.92	.02	.78	.05	33
8	.56	.09	.74	.06	.71	.07	.75	.06	.81	.05	.93	.01	.93	.02	.87	.02	22

The figures in the column headed No. of Pupils in Grade are only approximately correct. They are correct for the Otis tests. In a few cases pupils were absent or a greater number present in other tests. They are so nearly correct that for the purpose of this table they may be taken as correct in all cases.

The coefficients of correlation shown in table IX are unusually high and have small probable errors in nearly all cases. The marked exception to this is in grade II where two coefficients are exceedingly low and with large probable errors. We are not certain as to just what the correct interpretation of these low coefficients is. It is probably one of several things: (1) the teacher found it exceedingly difficult in her first attempt to rank pupils on the basis of innate intelligence, or (2) the pupils got lost in the test; it is not likely, however, that it was the latter since the pupils ranked uniformly high in the test; it may be possible (3) that the test is too easy for the pupils and hence the entire group ranked high and in which case the test did not rank the pupils properly. This last condition does, however, not seem to exist in any other grade.

The only other coefficient we should call special attention to is that in the 6th grade between the teachers' judgment and the total score on the Chicago test. Here the coefficient is comparatively low and the probable error high. This is probably due to some fault in giving the test. In this particular case the test was not given by the person who gave the tests throughout the school generally.

and possibly thirteen pupils who can progress at more than normal rate.

8. In Grade VIII there are certainly two and possibly four pupils who can progress at more than normal rate.

9. It seems from the results in Table 9 that the different tests used are very reliable in ranking pupils in the proper order of intelligence, and hence are excellent means for dividing pupils into different groups for purposes of instruction.

10. The teachers (apparently) did very excellent work in ranking the pupils on the basis of judgment after four months' acquaintance with the children.

It should be noted that in practically all of the above cases the pupils gave evidence of a high degree of ability in class work and in standardized subject-matter tests. They were immediately singled out and at the close of the year we were convinced that a decided benefit came to both the pupils who were put into the rapid progress group and the ones who remained to progress at the regular rate. We were not disappointed in a single person put into the rapid progress group.

Note—This paper will be concluded in December with a statement, "What Was Done in the Matter."—Editor.

Two Administrative Problems

A Village Schoolmaster.

Whether he be the president of a great university or the principal of a four-teacher village school, the most important duty that a school head can perform is the recommendation or employment of teachers for his school system. There is nothing else that will raise the standards of a school as will the employment of a superior teacher. Conversely there is no error in school administration that is harder to correct than the employment of a poor teacher. As I look back over the years I have spent as a village superintendent and principal, I recollect no mistakes that I regret more than those that I have made in the filling of vacancies in my faculty.

When I took charge of the school at Caton Junction, the board dinned economy at me so much that I was finally afraid to order even a ream of manila drawing paper. Of course, when it came to hiring teachers in the spring, I did not dare spend any money on railroad fare to interview candidates. Our negotiations were conducted at long range, and as a result we engaged Myra Embree for our high school English work at a salary of nine hundred dollars a year. That was the end of engaging teachers by correspondence in that school, for the school would have been better off if the nine hundred dollars we paid to Myra Embree had been buried in a hole in the ground. Whenever we needed a teacher thereafter I boarded a train for the state teachers' college, the state university, or the teachers' agencies in the city. These trips altogether cost me perhaps twenty dollars a year, but we wasted very little money thereafter in paying salaries to grossly incompetent teachers.

The Trouble Maker.

My friend Wade over at Teeburg was almost as unfortunate in the third grade teacher he hired last year as we were in the case of Miss Embree. He went up to the city to examine the papers of candidates at the agency offices. He finally located a Miss Ellkay, whose papers impressed him very favorably. She had a fine recommendation from the well known Democratic politician, Senator Batwing. She had been teaching over at Downville, and Edgar Tite, the treasurer of the school board there, and William Bright, the mayor of the town, both had sent in very favorable reports in answer to inquiries that the agency had sent them. The agency had also sent a reference blank to Superintendent Doyle at Downville but no reply had been received from him. It was the middle of July, Wade thought he had made a real find, and so he decided to engage Miss Ellkay without taking time to get in touch with Superintendent Doyle. He has been wishing ever since that he had, for he discovered too late that Miss Ellkay is one of those rare teachers who have a knack of making themselves popular in the community and making trouble at school.

If anyone addresses an inquiry regarding a teacher to me, I try to state the facts as I see them without equivocation and without the concealment of anything that is material. I have learned to my sorrow, however, that all people do not do so, and that he who would learn the real state of affairs from some recommendations must learn to read between the lines. This, for instance, is what one superintendent wrote about a Miss Johnson, who worked with me a couple of years ago: "Miss could undoubtedly do good work in a school system where she would receive the co-operation of the other members of the faculty." Maybe he is right, but I doubt if the truth of his statement will ever be tested, for Miss Johnson impresses me

as a type of teacher that will never get along with her associates anywhere.

A Genealogical Recommendation.

This is what the dean of the state teachers' college at Xville wrote about one of their people, "Miss Smith comes from a family known throughout this portion of the state for its culture, high ideals, and devotion to duty." Since the year that Miss Smith taught with us, I have been rather skeptical of the value of genealogical study as far as the judgment of teachers' qualifications is concerned.

I intend to remain in school work for several years to come, so I suppose that I am destined to engage a few more poor teachers before I begin to draw my pension. I hope, however, that I shall at least be able to assure my conscience and my school board that I have interviewed the candidate personally where it is possible to do so, and that the superintendents with whom the candidate has worked have made definite and unequivocal answers to very definite and pointed questions regarding the applicant's character and professional qualifications. I shall expect, too, that the board shall elect no teachers unless I have nominated and approved them.

The Problem of Textbooks.

Of almost as much importance to the success of a school as the selection of teachers is the choice of textbooks. This is particularly true in our smaller school systems where the teachers are often young, the administrative officers comparatively inexperienced, and the course of study as a result determined to a great extent by the texts used. Say what you will about getting away from textbooks in our teaching, the young teacher or principal who can plan a better course of study than the specialist who wrote the textbook is rather rare. If he can, he will undoubtedly be writing a textbook himself in a few years.

It would seem, then, that the head of the village school should devote to this task of the selection of textbooks the time for mature deliberation that its importance demands. In my own case, however, I have often been so busy (or have thought I was) ordering sweeping compound, preparing pretty graphs of tardiness, and scheduling games for the basket ball team, that I have had scarcely any time left for the selection of books. As a result some queer considerations have occasionally governed my choice of books.

The weightiest argument in favor of one geography we adopted was that it was used in the ten largest cities of Iowa, in Oshkosh, Wisconsin, and Memphis, Tennessee. In many respects it was a very good book, and no doubt it was admirably adapted to conditions in the manufacturing cities where it had been adopted. Our little rural community in the bottoms of the Robin River has problems very different from those of a bustling manufacturing city, however. We would have done much better if we had surveyed our own particular needs pretty carefully, and then selected a book to meet those needs rather than taking a book unquestionably because it met somebody else's needs.

The Helpful Bookman.

I have learned that it is possible to obtain a great deal of help in the selection of books from the bookmen. I do not know of any finer class of men anywhere than the bookmen in our state. I doubt if I have ever had one of them come into my office who did not leave me a little happier and a little wiser than he found me. They are real ambassadors of progress, and outside of college faculties there are few men who

are more familiar with the present trend of educational thought. When I talk with them, I do not talk much, but I do a tremendous amount of listening.

Nevertheless, I do not buy any books while the representative of the book company is in the office. After all he draws his salary for his success as an advocate and not for his ability as a judge of textbooks. Even the finest of them cannot very well afford to call attention to the fine features of his competitor's book. It is very, very seldom that a book looks as good to me when I examine it by myself in the evening as it does when the salesman leads me on a personally conducted tour of its pages in the afternoon.

I have always been rather reluctant to change textbooks anyway. Our family at home when I was a youngster was a large one, and school books like clothing were handed down from one member of the family to the next. I remember how exasperated my parents would be the opening day of school in the fall when I would come home with the news that I could not use the perfectly good grammar that my brother had used in the same grade the year before. It was almost as tragic an occurrence as the discovery that the moths had eaten Willie's overcoat that Bobby was scheduled to wear the following winter. Whenever I am tempted to change texts, I think of the large families (there still are a few such) who would have to discard books that are still in good repair, and if possible I try to devise some way of making the book we have fit a modern course of study.

Conservatism Essential.

My friend Jones of the Puritan Publishing Company tries to convince me that my policy of conservatism in the changing of textbooks is a mistaken one. He says that he has watched the career of hundreds of superintendents, and that he has concluded that whenever a man has been overly cautious in making changes in books and equipment, his community has decided in a short time that he is slow and unprogressive. He says that on the other hand when a man has dared go ahead and scrap old books and old supplies, he has undoubtedly made enemies, but the progressive element in his town has lent him its confidence and support. They have declared, "Our superintendent is expensive, but he certainly is a live wire." Every once in a while I decide that my friend Jones is right, and that that overly wide streak of conservatism in my mental makeup is responsible for my not being able to land a bigger job than a village superintendency.

I have worked with some teachers who have insisted that they could not teach their subject unless they could teach it from a certain text. Three years ago we hired a teacher for our high school French who insisted that she could teach it successfully from Chauvet's Beginnings in French and no other. We got the books for her, and then she resigned in October. The two French teachers we have had since have both cursed the book roundly, but what shall we do about it? If we get the book that our present teacher wants, and she resigns in a year, we may be sure that her successor will want something else.

Choosing an Arithmetic.

The first fall that I was at Ellville, two of the older teachers came to me and said, "We do hope that you will change the arithmetics, Mr. Kay, they are absolutely lacking in organization."

"That's a fine suggestion for teachers' meetings this fall," I replied, "We'll have a series of grade teachers' meetings to study the arithmetic situation. Before we take up the specific task of

comparing texts, however, suppose we devote a few weeks to a general study of the modern trend in the teaching of the subject."

I owned a few books dealing with the psychology and pedagogy of arithmetic, the teachers owned a few others, and there were three books in the high school library. We felt that we needed still more information, so we went to the library of the U. S. Bureau of Education at Washington for more material, and they sent us a regular library dealing with the arithmetic situation. I have never before or since attended teachers' meetings in which there was more interest shown or more general participation on the part of the teachers themselves than our grade teachers' meetings that fall. We invited the professor of mathematics at the nearest state

teachers' college down for one of our meetings. I warrant that that man answered more questions regarding the teaching of arithmetic that afternoon than he had the preceding month. They were pointed questions, too, that really went to the vitals of the subject.

We finally decided that we had acquired a pretty fair idea of what was what in arithmetic, and passed on to the study which was our particular aim in the first place, the investigation of textbooks. By that time most of us had changed our ideas pretty thoroughly. We had discovered for one thing that we had been trying to teach arithmetic pretty much in the traditional manner that it had been taught to us when we were boys and girls in the grades. We examined about eight different books and found

none that fitted in with our new ideas better than the book we were using, the book that had been accused of lack of organization. As one of our teachers put it at our last meeting, "Why, that book is simply wonderful; it is in accordance with every law of modern child psychology and sociology. The trouble with us was that we had gotten so accustomed to the stiff logical arrangement that characterized the mathematics texts of the early part of the century that we expected that books had to stay that way forever."

If we make thorough investigations before we make any changes in textbooks, we shall undoubtedly make fewer changes, but those changes that we do make will be steps *forward* and not merely steps.

Effective Supervision for Country Schools

H. E. Hall, Superintendent, Wood County, Ohio.

In 1921 the Ohio General Assembly passed a law abolishing "district" supervision and authorized the county boards to appoint a county superintendent and assistant county superintendents to supervise all the schools of the county district.

The change from district superintendents to assistant superintendents was made because many progressive school patrons and thoughtful educators believed that the duties of the district superintendent were too varied and too inclusive to permit him to become highly efficient as a supervisor of instruction.

With assistant county superintendents it would be possible to departmentalize the supervision on a basis of grades, thereby narrowing the field of the supervisor and making it possible to have for each department a well-trained and highly skilled supervisor.

The Departmental Plan.

In Wood County, since September 1, 1921, there has been one supervisor for the first four grades, one for the upper four grades and another for the high school grades. While the plan is still in the making and will require time to perfect it, we are already convinced that it is twenty to thirty per cent more efficient than the district plan which requires the same person to supervise all subjects in all grades from the kindergarten through the high school.

Under this plan a routing scheme is worked out for the whole county. One supervisor starts at a certain point and works from school to school until she has visited all the teachers in the county that belong to her group. The other supervisor starts at some other point and works in the same way, so that each school is reached by the different supervisors at equal intervals, so far as possible.

The first visits of the supervisors are just long enough to give assistance needed to start the teachers off well. The second and subsequent visits the supervisor spends about a quarter of a day with each teacher, and schedules the work so that each visit enables the supervisor to observe a different phase of the work. To illustrate: The first visit brings the Supervisor to certain teachers the first quarter of the day; the second visit, the second quarter, etc., so that during the year she is able to observe the work in all subjects taught.

In the one-room schools the primary supervisor deals specifically with the problems of the first four grades but gives any assistance she can, in a general way, in matters of organization, management, etc., in the upper four grades. The upper-grade supervisor deals specifically with problems of the upper four grades and assists in a general way in the work of the lower four grades.

In consolidated schools the primary supervisor visits only the teachers of the first four grades, the upper grade supervisor visits only the upper grade teachers, while the high school supervisor visits the high school teachers.

Special Duties of Supervisor.

If a supervisor finds a very hard problem or a bad condition in some school she reports it promptly to the county superintendent's office and that office renders any special service it can to improve the situation.

In the conferences held each Saturday each supervisor makes a report on the schools visited during the week and plans for dealing with unsatisfactory situations and special problems are agreed upon. Duplicates of the supervisors' reports to teachers are filed in the county superintendent's office.

In the larger consolidated schools the supervisor confers with the principal and cooperates with him in working out the problems of supervision and administration.

So far as possible a supervisor attends each board meeting and makes reports on progress of the schools, offers suggestions for increasing the efficiency of the schools, and discusses educational objectives and projects.

In each district not maintaining a first grade high school a teacher or principal is designated as "principal teacher". The "principal teacher" takes charge of extra school activities—community meetings, contests, eighth grade commencements, closing day exercises, etc. "Principal teachers" meet frequently and confer with the supervisors regarding the extra school activities. The supervisors attend as many of the extra school activities as their duties permit.

Under this plan the teachers hold group meetings in which problems of immediate concern to the teacher are considered, achievements of the best teachers and school systems are discussed, and in which professional studies are carried on.

Advantages of Departmentalization.

To summarize the advantages of the plan it may be said:

The primary function of the supervisor is to increase the efficiency of teaching and make instruction yield the greatest possible return to the children and the community.

Effective supervision demands a supervisor who knows the field in which she works so well that she is able to sense the difficulties and needs of the teacher at the very beginning of the year—during her first visits and is able to influence or compel the teacher to make adjustments early in the year and make every session and every recitation helpful in the highest degree to every pupil.

The departmental plan makes it possible to divide the work, narrow the field of supervision and secure more efficient supervisors.

Under the guidance of an efficient supervisor few teachers become discouraged and fail. Under the departmental plan misfits in our public schools can be readily readjusted or eliminated.

Better use of the course of study, bulletins and outlines can be realized under the departmental plan.

The plan encourages initiative on the part of the supervisor. At the same time it makes it possible to control experiments and avoid novelties that are not well worked out. Every good idea of the supervisor is welcomed and due freedom is always granted after the county organization has been satisfied that it may increase the efficiency of the schools in any degree.

Under this plan the supervisor is able to administer intelligence and achievement tests in the few grades she supervises.

The county superintendent can keep in closer touch with all the work in the county under this plan.

The departmental supervisor is able to keep the teacher in touch with the newer educational movements and help her evaluate or adopt them.

The teacher who needs either inspiration or a new start has a better chance under this plan.

The departmental supervisor is better prepared to demonstrate principles and methods and make it possible for the teacher to improve rapidly.

The teacher gives the efficient supervisor full confidence and sincere support.

The skilled supervisor is able to render assistance in such manner that the teacher does not regard criticism as personal but entirely according to its adaptability to the ends of instruction.

The plan enables the supervisor to concentrate along fewer lines—to be a student, a leader, an experimenter along the lines of her work every day of the year.

The honest teacher who deplores the "blanket" or indiscriminate approval of the unskilled supervisor welcomes the honest rating of the skilled supervisor.

The departmental plan cultivates in the teacher a professional attitude and puts supervision on a professional basis.

Under the departmental plan the teacher develops rapidly, becomes less and less dependent upon the supervisor, and acquires what supervision most earnestly seeks to realize—ability for self supervision.



THE ROOSEVELT HIGH SCHOOL, KENT, OHIO. Mills, Millsbaugh & Carmichael, Architects, Columbus.

How One City Solved the Building Problem

W. A. Walls, Superintendent of Schools, Kent, Ohio.

Aside from the selection of a competent school superintendent, the most difficult job which confronts a board of education is the correct procedure toward the erection of a new school building. The small city is specially handicapped in that it cannot consistently maintain a building department, and yet must proceed toward the selection of a site, an architect and the agreement upon plans and construction contracts.

Kent, Ohio, has a population which jumped five years ago from 4,500 to 7,500. The location of new industries doubled the school population in ten years.

Early in 1919 the board of education saw that increased facilities were imperative for both grades and high school. In April, 1919, a bond issue of \$275,000 was submitted to the voters for repair of old buildings, addition to one grade building and for a new high school building including athletic field. This bond issue carried by a vote of 6 to 1.

During the summer of 1919 a site was purchased for a high school building about three blocks from the center of the city. The site had a frontage of 140 feet and a depth of 410 feet. Preliminary plans had been drawn for a building on this site. Early in 1920 the board of education realized that the amount of bonds issued would not provide the proper type of high school building for the city. After carefully considering the matter, the board decided to lay the matter before the Chamber of Commerce of the city. After careful consideration, this body passed a resolution supporting the board of education in an additional bond issue for whatever amount deemed necessary. The additional amount was fixed at \$200,000 and

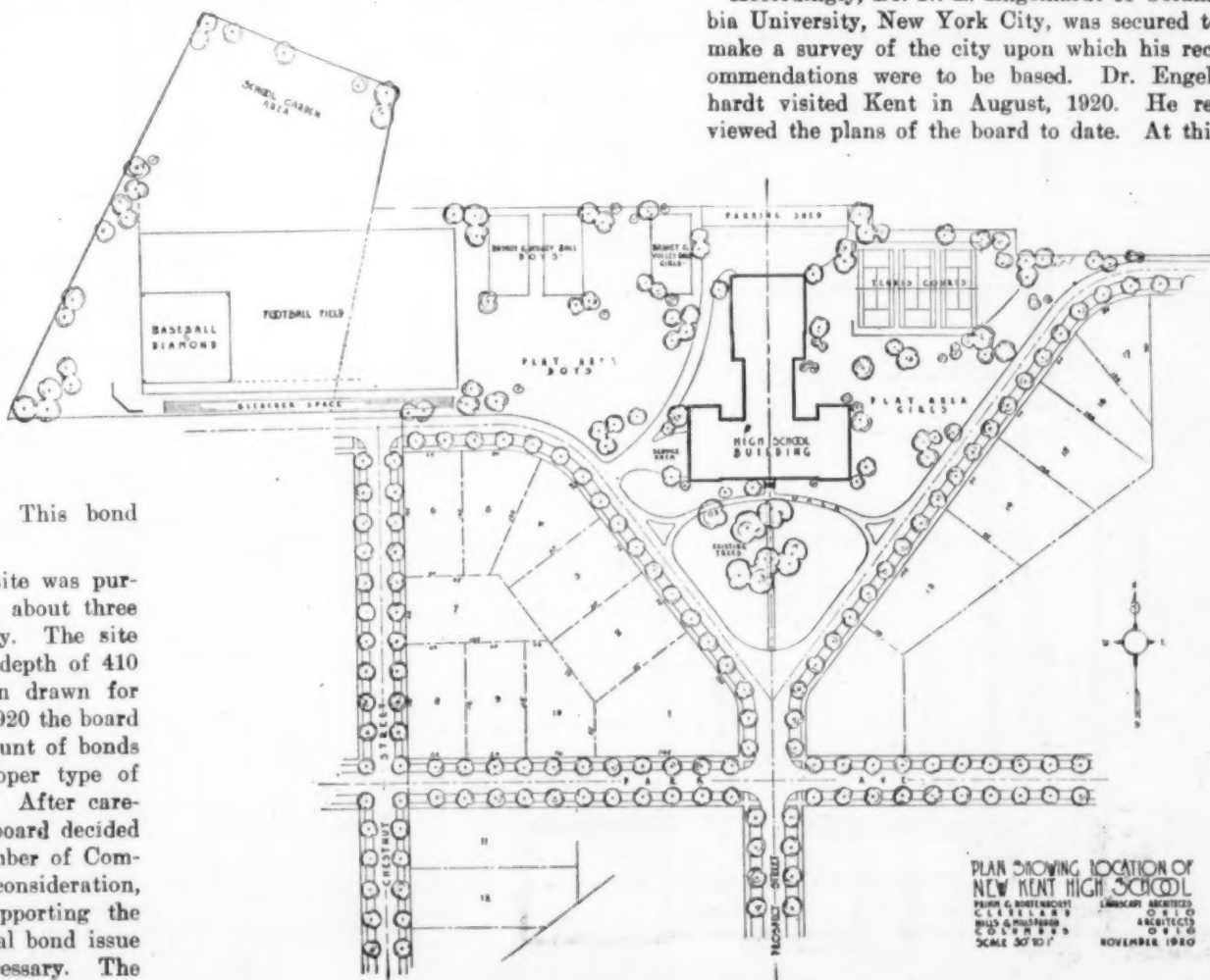
this amount was passed on by the voters in April, 1920. It carried by a vote of 5 to 1.

In July, 1920, the writer assumed his duties as superintendent of schools after all these preliminaries had been successfully accomplished by the board and former superintendent. After

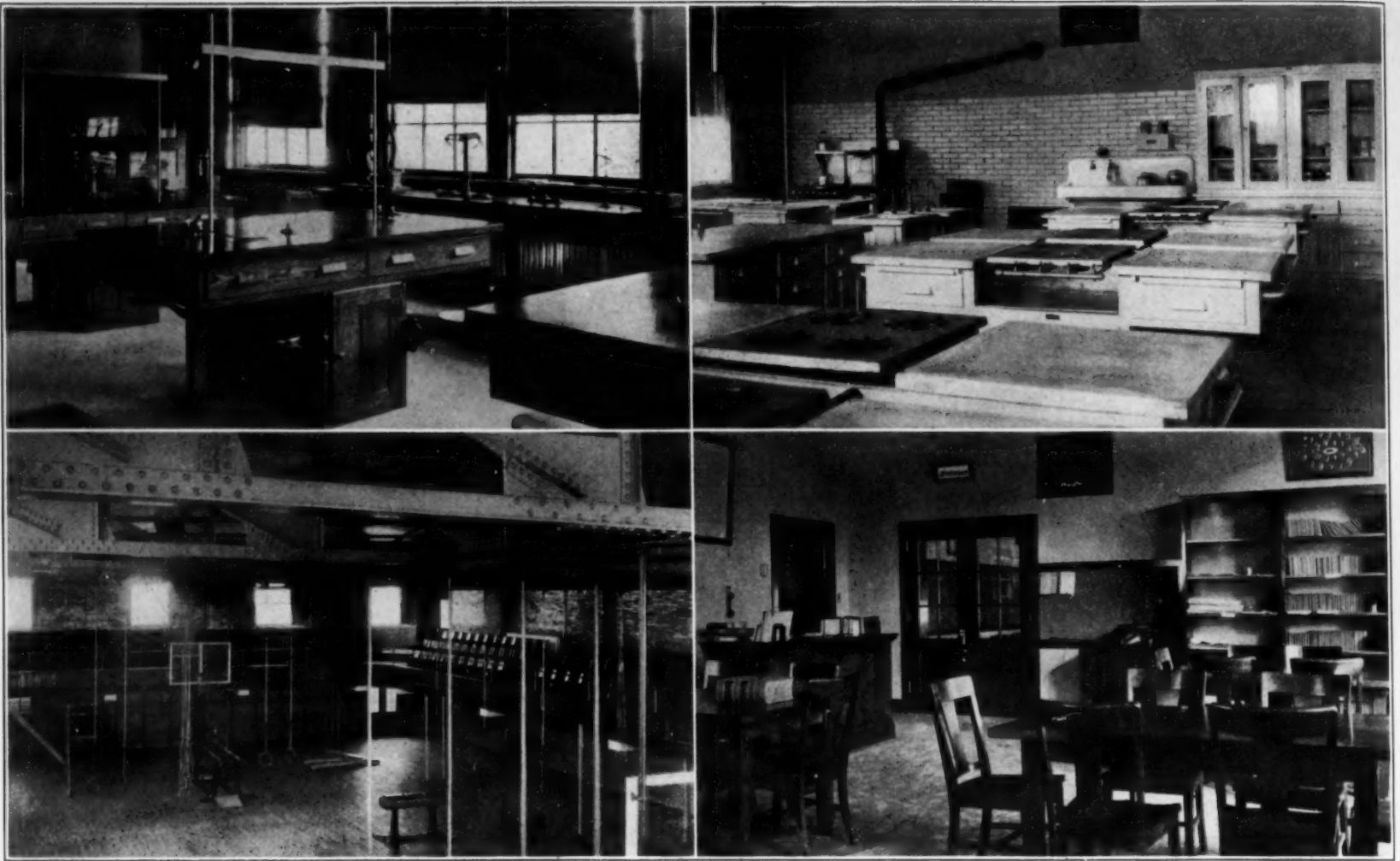
a careful study of the situation it became his conviction that what was needed was a survey by a school expert from the outside both in regard to location and type of building to be erected.

Inaugurated a Schoolhouse Survey.

Accordingly, Dr. N. L. Engelhardt of Columbia University, New York City, was secured to make a survey of the city upon which his recommendations were to be based. Dr. Engelhardt visited Kent in August, 1920. He reviewed the plans of the board to date. At this



PLOT PLAN, ROOSEVELT HIGH SCHOOL, KENT, OHIO.



ABOVE, PHYSICS LABORATORY AND DOMESTIC SCIENCE ROOM. BELOW, GYMNASIUM AND LIBRARY.

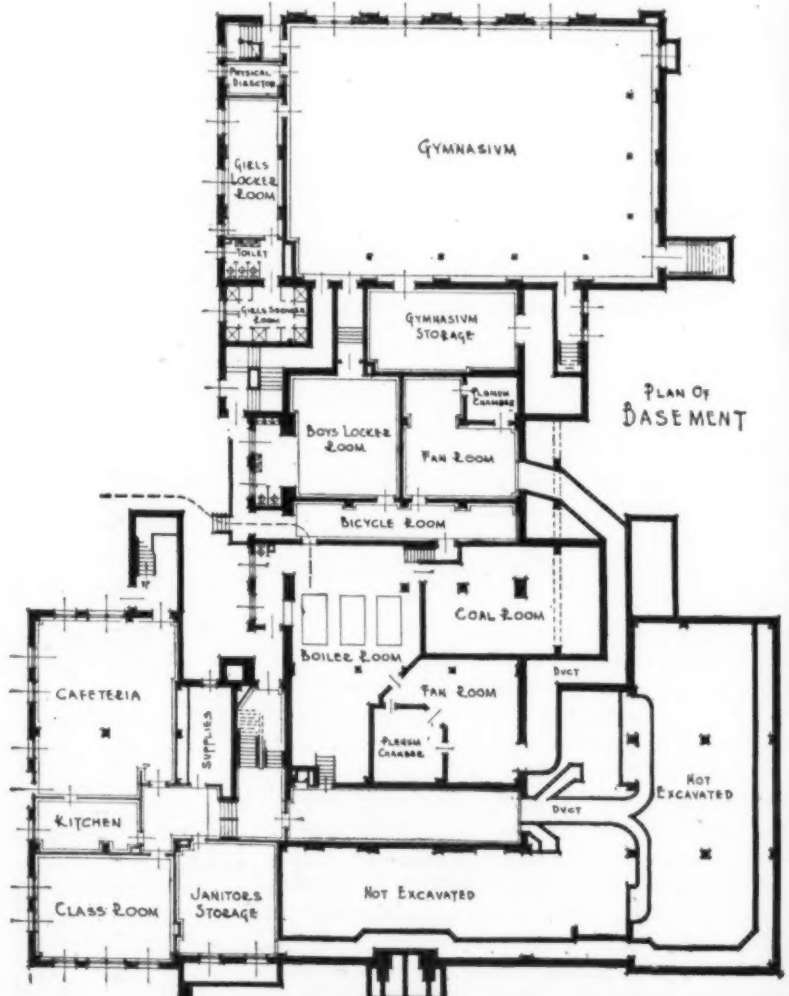
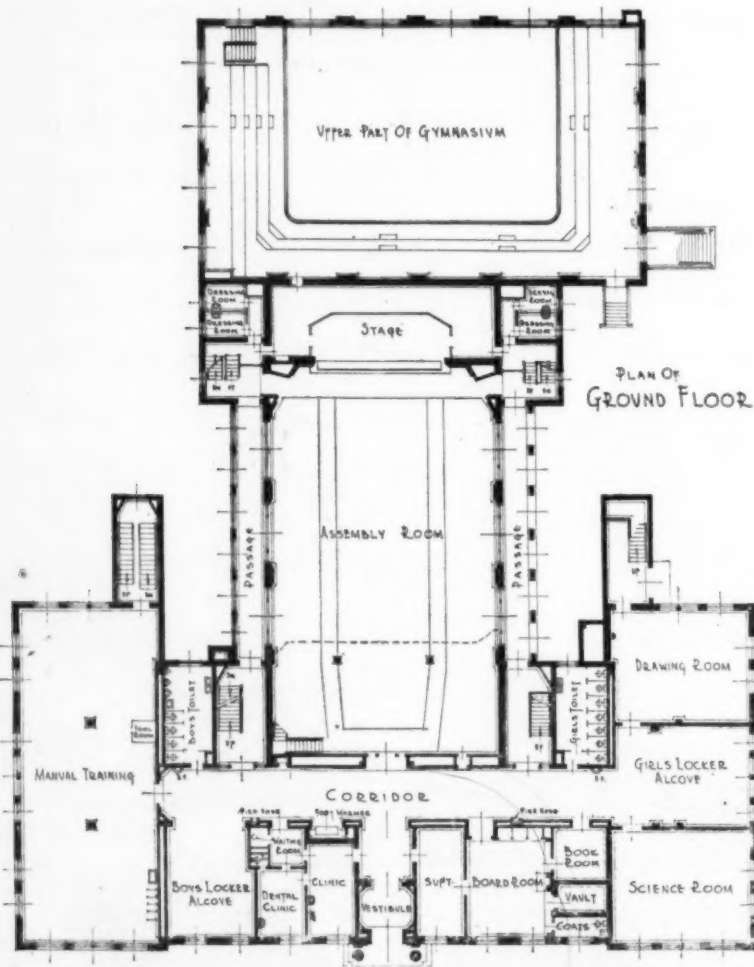
time the architect had designed a building which could not be built on the site unless that site could be expanded.

Dr. Engelhardt recommended, after his survey, that the site already selected be abandoned

on account of unsuitability for school purposes and inadequate size. As it had been deemed about the only available site when it was purchased, this gave the board quite a problem. Two sites were suggested by Dr. Engelhardt,

but one was prohibitive in cost and the other could not be secured.

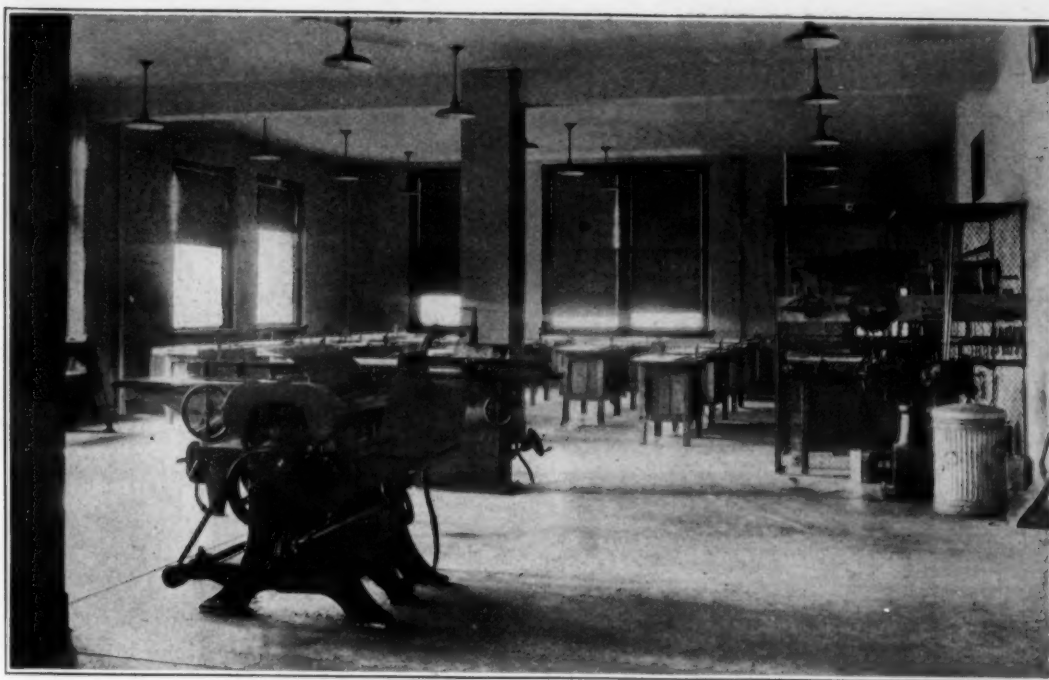
Finally a public spirited citizen who had purchased considerable land in a very desirable but recently developed residential section of the



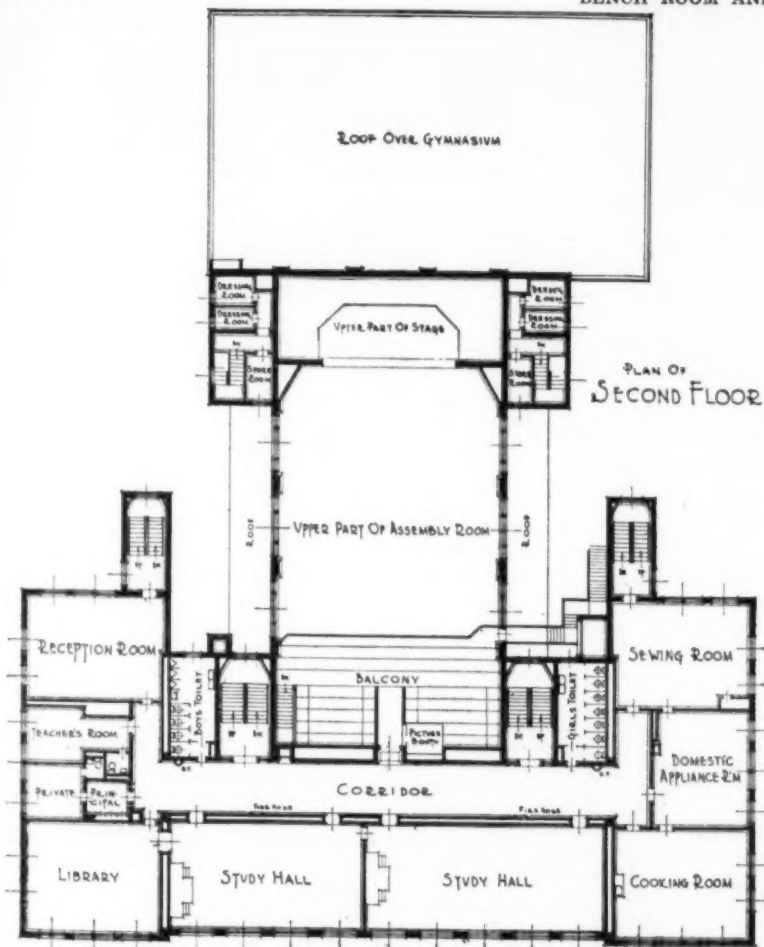
FLOOR PLANS, ROOSEVELT HIGH SCHOOL, KENT, O. Mills, Millsbaugh and Carmichael, Architects, Columbus, O.

city informed the board that if he had any land which the board deemed available for a school site, it could be purchased very reasonably. This plat of land was cut by an old railroad right of way with a very deep cut across the front of the proposed site. The ownership of this right of way had been in question until a few weeks before when it had been purchased by the above mentioned citizen. This tract of land is located within three blocks of the present high school, but the apparent difficulties of grading and securing the same had rendered it unavailable in the judgment of the board.

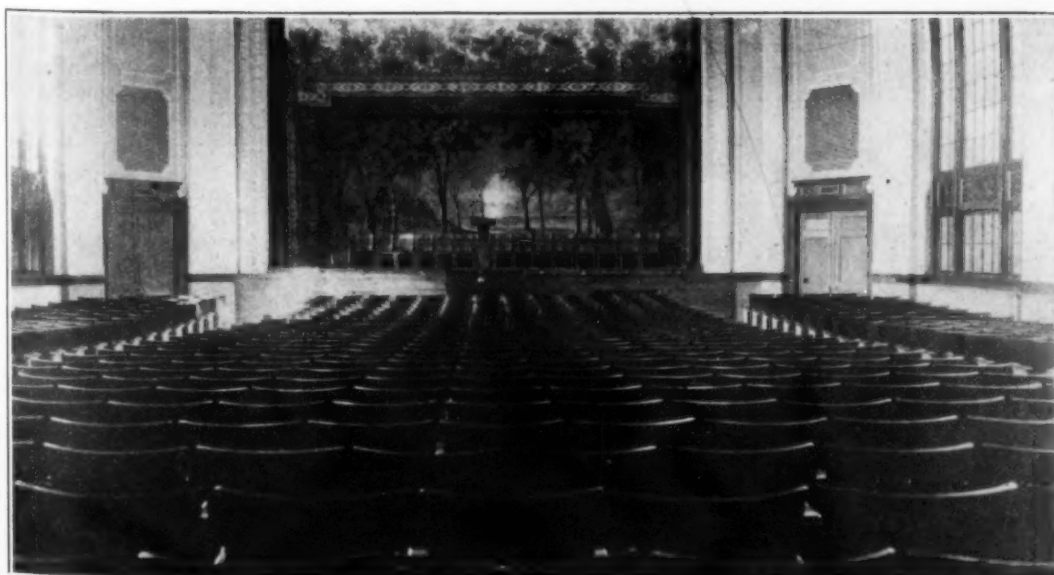
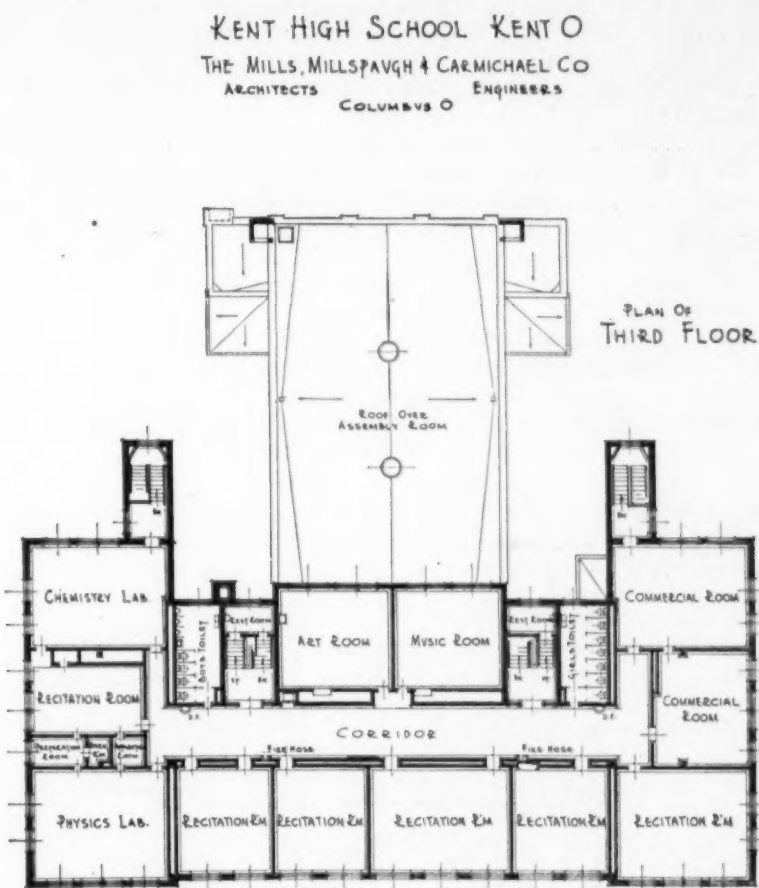
Dr. Engelhardt again visited the city in October, 1920, and heartily endorsed the proposed site as the best he had seen in the city. Options were quietly secured and within two weeks about nine acres of land had been secured as the site of the proposed high school instead of a town lot 140 feet by 410 feet. A landscape artist from Cleveland laid out the site for the various school activities and athletics with the result that Kent has one of the finest plants which can be found in any of the smaller cities of Ohio.



BENCH ROOM AND WOODWORKING MACHINERY DEPARTMENT, ROOSEVELT HIGH SCHOOL, KENT, O.



FLOOR PLANS, ROOSEVELT HIGH SCHOOL, KENT, OHIO.

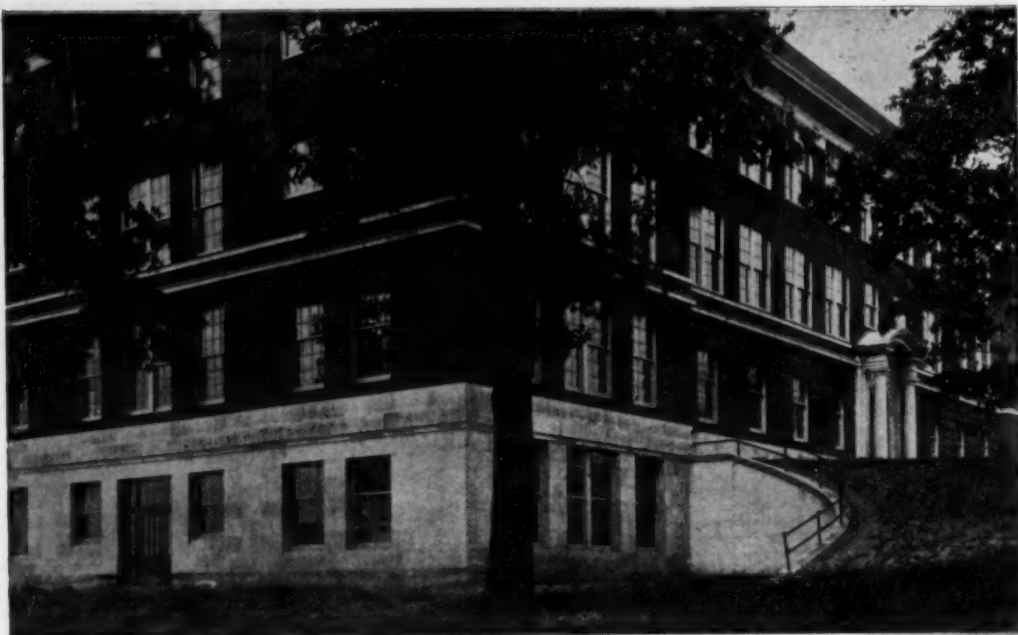


THE AUDITORIUM, ROOSEVELT HIGH SCHOOL, KENT, O.

There was some opposition to the change of site from the center of the city to the west side as it is divided by the Cuyahoga River. As soon as the change of site was settled the board of education published in full in both local newspapers the plans for the development of the new plot and building, together with their reason for a change of location, including the recommendations of the Consulting Expert. The result was that, as this information became public, practically all the opposition disappeared, and the action of the board of education has received almost universal commendation.

The contract for this building was let on May 27, 1921, and the completed building turned over to the board on May 22, 1922, a little less than one year after the contract was let.

The building has been named the Theodore Roosevelt High School and was formally dedicated September 22. A bulletin was published



DETAIL OF WEST SIDE OF ROOSEVELT HIGH SCHOOL, KENT, O.

giving the facts in regard to the construction showing views and floor plans of the building and giving a complete and detailed statement of the final cost of the building.

The main items of cost of the building are as follows:

Site	\$ 20,886.56
Grading	11,836.13
Building	344,217.25
Equipment	42,809.13
Miscellaneous	485.72

Total.....\$420,234.79

The Mills, Millsbaugh and Carmichael Company of Columbus, Ohio, were the architects for the board of education during the entire building program, which also involved the remodeling of and addition to an old grade building which gave the city practically a new building. The Carmichael Construction Company of Akron, Ohio, erected the building in record time. It is of the substantial type for which this company is noted.

The natural slope of the site is such that there are four stories out of the ground on the west side of the building.

Description of Building.

On the basement floor at the west end will be found one recitation room, cafeteria, kitchen and supply room for the cafeteria. The cafeteria will seat 112 pupils at one time. Next to the recitation room is a room devoted to the mechanical control of the building. The switchboard for the building, and all electrical controls are located in this room. Here also is found a motor generator which supplies a direct current for the moving picture booth and for the physics laboratory tables. The rest of the basement under the main part of the building is not excavated. All pipes, however, are carried around the wall in a tunnel which is entered from the janitor's room.

Under the auditorium is located the boiler room with daylight exposure to the west. To the east coal storage space for about one-half the year's supply of coal is provided. The two fan rooms are located adjacent to the boiler room, one for the main building and one for the auditorium and gymnasium.

The gymnasium with storage room, boys' and girls' lockers and showers, is located on this floor. The unusual feature about the gymnasium is that it has natural lighting on three sides. The passageways connecting the main corridors with the gymnasium represent something new in school architecture. This plan enabled the architect to have the auditorium

and gymnasium practically on the same floor and natural lighting in both rooms. It added materially to the cost, but was considered by the board as being well worth the extra cost.

The balcony in the gymnasium extends around three sides and has a seating capacity for 275 students. Removable bleachers are used on the playing floor level, seating 300, making the total seating capacity nearly 600. The balcony floor is on the same level as the stage floor so that the balcony of the gymnasium, gymnasium floor and dressing rooms may be used for the performers in staging productions involving large numbers of students.

On the ground floor will be found the auditorium. This seats 830 people. The stage has been especially arranged with the largest proscenium opening possible for the staging of school productions involving large numbers of pupils. There are four dressing rooms and a property room on each side of the stage. On this floor in the main part of the building will be found the shop department, including the

bench room, wood-working machinery and machine shop room, boys' and girls' locker alcoves, suite of rooms for health work, offices for superintendent and board of education, book room, vault, general science room and drawing room.

Special attention was given to providing the best possible facilities for health work. The clinics have been completely equipped through the generosity of private citizens and a local health organization.

On the second floor are two small study halls, designed to seat one-fourth of the total capacity of the building, women's rest room, library, principal's office, one recitation room, cooking room, sewing room and a domestic appliance room. This room was arranged to be used for a laundry, dining room, and is provided with all necessary outlets, as hot and cold water, gas, waste and electricity, so that any type of modern household machinery may be demonstrated in this room. The space was used for this type of room rather than the stereotyped "model apartment" as it was believed it would be more serviceable for practical home economics work.

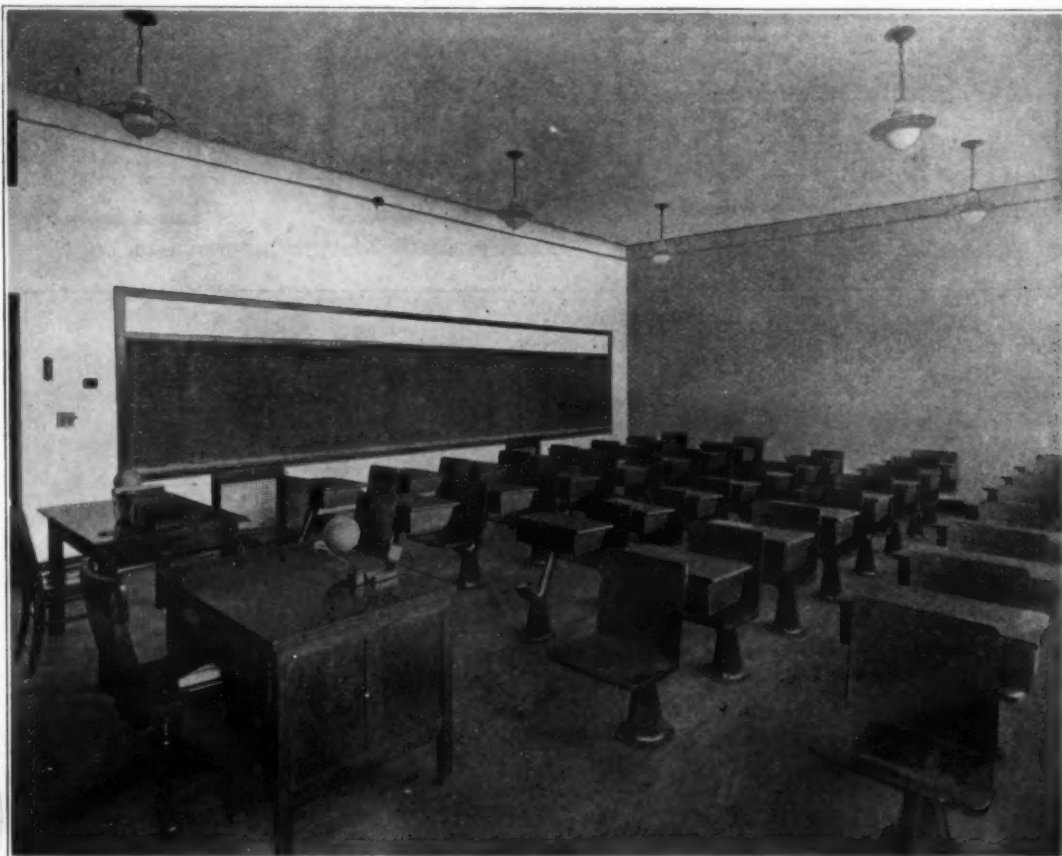
On the third floor are five recitation rooms, physics laboratory, chemistry laboratory, lecture room, bookkeeping room, typewriting room, art room, music room and men's rest room.

There is special provision made by separate blower system for removing gases from chemistry laboratory. A special room has also been provided for the science instructor as well as a dark room for purposes of photography.

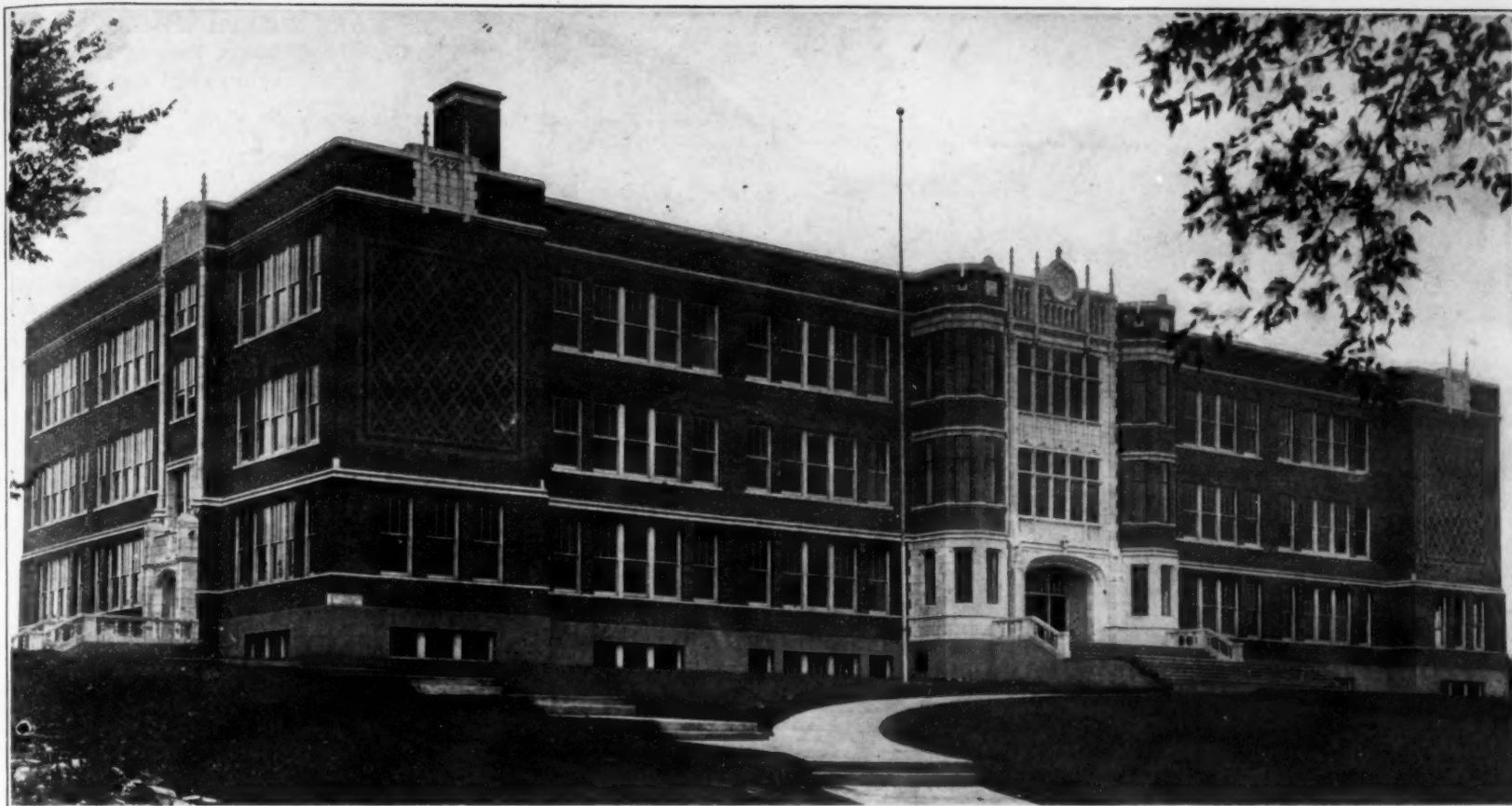
Boys' and girls' toilet rooms are provided on each floor. These are finished with terrazzo floors, white tile walls and marble partitions. They are arranged in tiers with an open chamber extending from basement to third floor in which all plumbing is located. Entrance to this chamber may be made from any floor.

The site deserves special mention. It contains about ten acres and is being developed to care for all the activities which should go with a modern school. A recent addition to the original site allows the football field to be laid out north and south and gives more ground for

(Concluded on Page 129)



CLASSROOM, MCKINLEY JUNIOR HIGH SCHOOL, CEDAR RAPIDS, IA. Mr. Bert Rugh, Architect.



MCKINLEY JUNIOR HIGH SCHOOL, CEDAR RAPIDS, IOWA. Mr. Bert Rugh, Architect.

THE MCKINLEY JUNIOR HIGH SCHOOL OF CEDAR RAPIDS, IOWA.

The development of the Junior high school is interesting from the standpoint of school-house planning because of the complete manner in which the problem of providing adequate facilities have been solved. While our high schools have been of very slow development in type and completeness, our Junior high schools, have from the first, shown remarkable adaptation of plan to educational use and occupation. They have risen almost over night, and that without the flagrant errors and shortcomings that characterized the early high school buildings.

Such buildings as the McKinley Junior High School, at Cedar Rapids, are not only dignified and expressive in design, but truly efficient in their disposition of space for the educational purposes of the schools they house. Much credit for the efficiency of these buildings is due to the close cooperation of educational authorities with the architects and the recognition on the part of boards of education that so complicated building and educational problems require expert initiative and counsel.

The school authorities of Cedar Rapids, Iowa, sought to provide the city with an attractive junior high school which also embodies all the practical utilities of such an institution. The structure is built of brick with terra cotta trimmings. In addition to an assembly hall there are some thirty-two classrooms.

The basement floor houses the gymnasium, swimming pool, shower baths, dressing rooms, kitchen, boiler rooms and coal bins. The gymnasium is provided on two sides with bleachers extending from the ground floor. The cafeteria is connected with the kitchen. A space permitting four classrooms is not yet assigned.

The ground floor contains the library and manual training department, besides eight rooms devoted to recitations, etc. One room is especially assigned for pottery work. The gymnasium extends into the ground floor.

The assembly room is located on the so-called first floor and rises to the second floor. There are ten classrooms on the first floor; also the administration rooms, which include the principal's office, a vault, rest and supply rooms.

The second floor contains ten classrooms, a music room and the physical laboratory. A kitchenette for the use of the teachers is also provided.

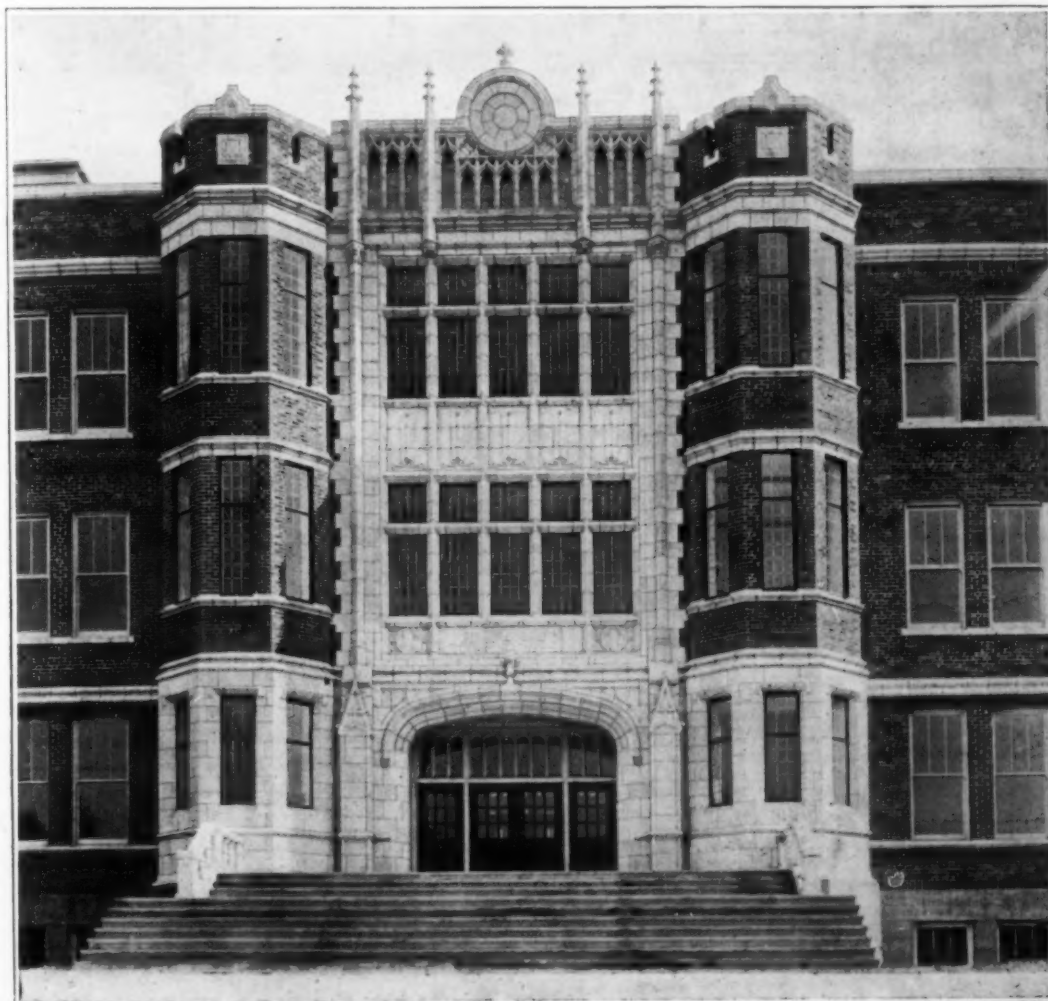
The corridor floors are covered with terrazzo material, while the classrooms are covered with maple floors. The doors and casings consist of oak wood.

The split system of heating and ventilating is used, direct radiation in each room augmented

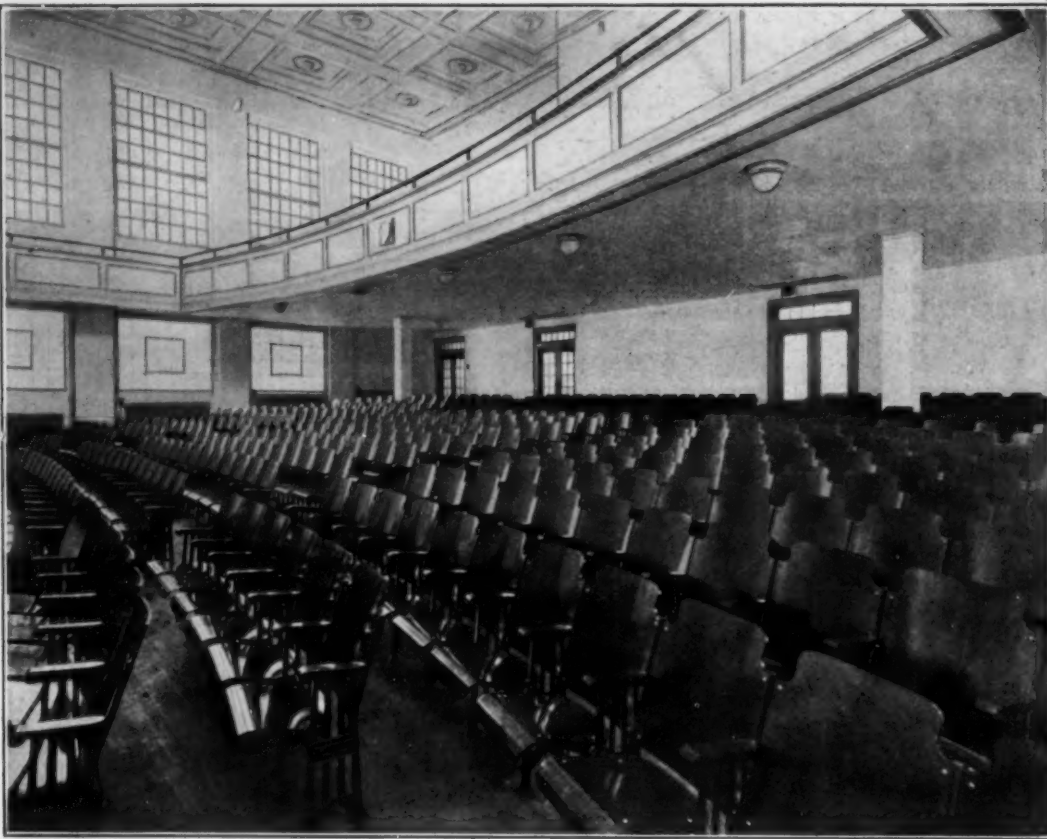
by forced ventilation with air washed, humidified air, automatically controlled.

The cost of construction ran 36 cents per cubic foot, and figuring the full capacity of the building, which is 1,000, including special departments such as art, science, manual training, etc., the cost per pupil ran \$475, the total cost of the building being \$475,000.

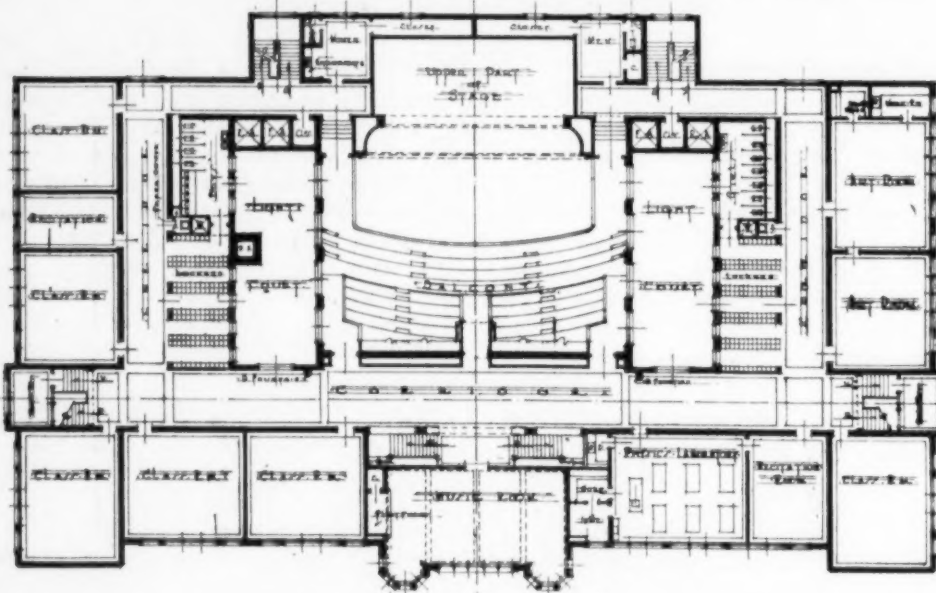
Mr. Bert Rugh of Cedar Rapids, Iowa, is the architect.



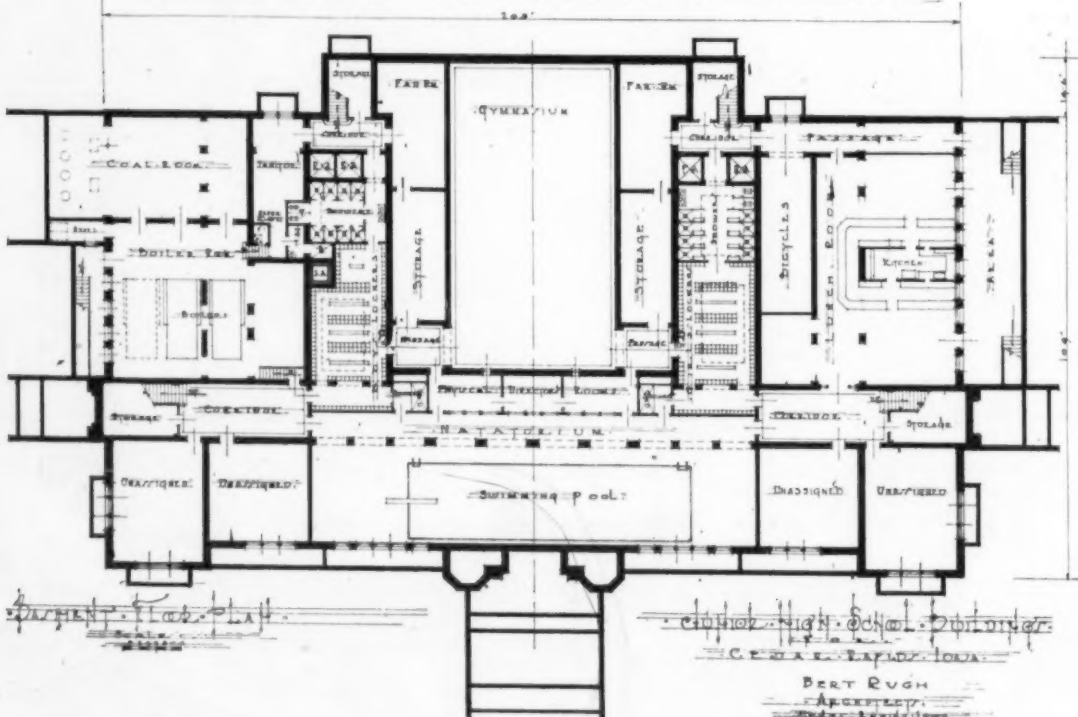
DETAIL OF FRONT ENTRANCE, MCKINLEY JUNIOR HIGH SCHOOL, CEDAR RAPIDS, IA.



AUDITORIUM, MCKINLEY JUNIOR HIGH SCHOOL, CEDAR RAPIDS, IA.



SECOND FLOOR PLAN, MCKINLEY JUNIOR HIGH SCHOOL, CEDAR RAPIDS, IA.



HOW TO MAKE TEACHERS' MEETINGS MORE WORTH WHILE.

Supt. H. C. Storm, Batavia, Ill.

I once knew a superintendent who when employing teachers always asked them if they enjoyed attending teachers' meetings. While I don't know how many teachers lied to him, I feel sure that some did, for teachers' meetings are not always what they might be. That teacher who complained about having to take an hour's ride through the rain after a hard day's teaching, only to find that the speaker did not arrive, was justified in her severe criticism of her city superintendent. When any superintendent calls a hundred teachers together for a meeting, that meeting should be extremely alive. The superintendent should have spent much time in preparation—in fasting and prayer—one might almost say. When I think of the vast amount of time wasted each year in useless and meaningless teachers' meetings I feel like writing a book on the follies of school superintendents.

President Harper, it is said, taught Hebrew as if it were a series of hairbreadth escapes. That is the way all teachers' meetings should be. The field of education is all bristling with problems, and shame on any superintendent who allows one minute of waste in his meetings.

Before mentioning the material which is worth taking up in meetings and which makes the meetings interesting I wish to mention a few rules that we of Batavia follow in our meetings. It is a rule that we always begin on time and close on time. Our meetings are one hour in length, never more than that no matter how important the material. The "to be continued" may come right at the most hair-raising part of the meeting, but it comes at the stroke of five. Rather than prolong that meeting we have another.

We never allow two or three teachers to do all of the talking. The teacher who has considerable self-confidence and who is exceedingly talkative is often the teacher with the thinnest crop of ideas. Indeed she is often the one who seldom thinks at all. The superintendent who has not tact enough or courage enough to quiet such teachers had better call off most of his meetings.

It is best always to start with something that is of interest to every teacher. Oftentimes high school and grade teachers meet together and their school interests are not identical. Even when grade teachers meet alone, the eighth grade and the primary grade have very different problems, but there is always some topic that is of interest to all, even if one has to resort to some of the latest gossip in the educational press. We ask teachers to work from the known to the unknown. It is the only way to teach successfully, and it is the only way to conduct a teachers' meeting. By thus getting the interest of all in the very first sentence the superintendent made a good start towards a good meeting.

The meeting must always be pleasant. If a superintendent has any scolding to do it should be done to the individual teachers who need it. Never more than one-fourth of the force need a scolding. Moreover, if a superintendent scolds the whole crowd, the ones who least need it take it most to heart.

Material for meetings is varied and easily obtainable. One of the most interesting is to collect a lot of projects. We of Batavia made last year a book of what we called "Batavia Projects." Call them "problem-projects" if you wish, for such they are. Each teacher was expected to contribute to this book, and many of the teachers got so enthusiastic about new projects that they could have filled a book of their own. These projects were "stunts", if I may

use that term, that the teachers had their own pupils perform. Of course some of the projects were not original with either the teachers or the pupils, for the teachers read all they could find on problem-projects, but most of the projects were original. They were thought out by the teachers and pupils working together. One who has never tried it out does not know how extremely contagious and prolific projects are. One suggests another and this suggests two more, and so on in more than geometrical ratio. Superintendents and teachers who have trouble getting enough projects reveal that they have never tried the project of getting projects from their pupils. Children have ideas.

Another very interesting task performed by our teachers was the thing Prof. Charters did at Kansas City. We watched for all of the English mistakes of the pupils of Batavia; only we did it much more thoroughly than did the Kansas City teachers. We kept the watch for over three months. We observed and listed all errors in written work as well as in oral, in class and out of class, before and after school. We felt when we got through that we had a reliable idea of the kinds of errors Batavia children were making. Of course the work at the teachers' meeting was the comparing of notes and the making of lists of the most common errors and discovering the rules of grammar and rhetoric that covered these errors. I need not tell you how much fun we got out of this, for anyone can imagine what a fascinating task it is. It should be done in every city every few years.

One of the most interesting tasks of all for any group of teachers is the constant making of the course of study. Ours is a loose leaf course and we keep taking out and putting in leaves. Life is constantly changing and a course of study must be in a constant state of change to keep pace with this rapidly changing environment of ours. The teachers in our meetings are the ones who do most toward making our course of study and many and varied are the intensely interesting discussions that this construction of a course brings up. We always have the conservatives and the progressives in every teaching corps, and some are "ultras" you know and the more "ultra" they are the more interesting are some of the discussions.

One of the most profitable aids to interesting and helpful teachers' meetings is to have the whole teaching force divided into committees like the following: Professional Books, New Supplementary Readers, Americanization, Health, Periodicals, Our Neighbors.

The reason for these committees is quite obvious. Teachers are so busy that they can't possibly keep up on all of these things. By having reports from these committees the whole teaching force is able to keep well informed. The committee on new pedagogical books reads all of the new ones and reports only on those that are worth while. In books along the line of pedagogy as well as in books on various phases of law and medicine there is much repetition. Ofttimes the real contribution of an author can be given in five minutes by a good live wire. The report from any one individual should never be longer than ten minutes at the most and preferably it should not be more than eight.

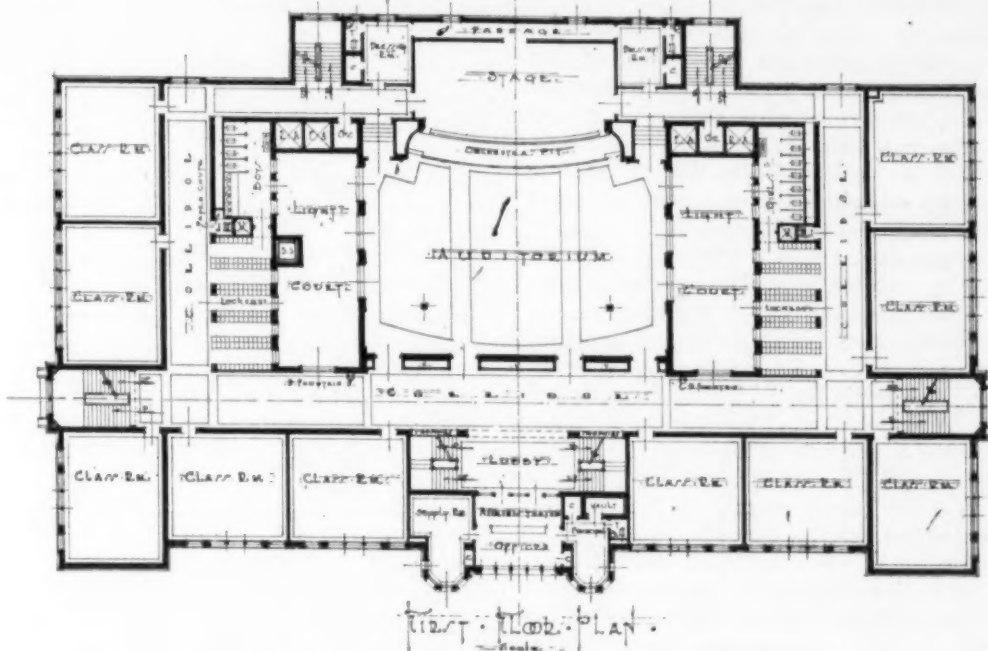
There are many new books in all lines of school work but there are more new readers and new English books than anything else. At least half of these are not worth knowing about. On the other hand each year sees some excellent contributions in these fields, and it is well for the teachers to keep up to date on these good books.

The committee on periodicals makes it their business to look through the different school journals and mark the articles that are worth

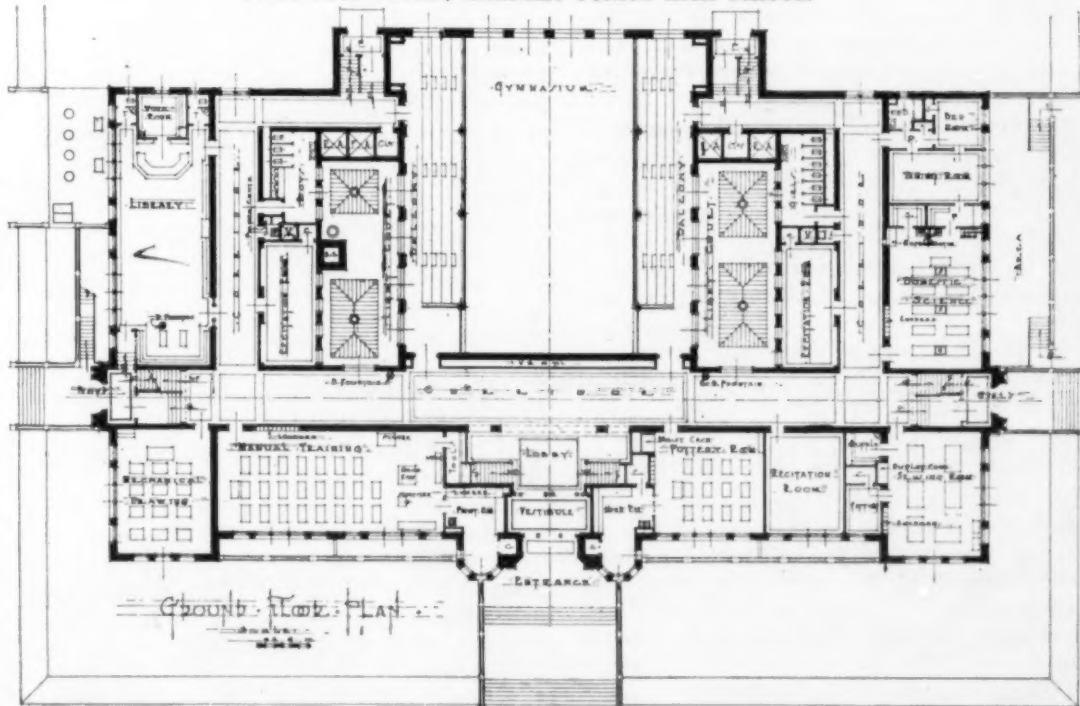
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DETAIL OF SIDE ENTRANCE, MCKINLEY JUNIOR HIGH SCHOOL.



FIRST FLOOR PLAN, MCKINLEY JUNIOR HIGH SCHOOL.



GROUND FLOOR PLAN, MCKINLEY JUNIOR HIGH SCHOOL, CEDAR RAPIDS, IA. Mr. Bert Rugh, Architect.



THE AMERICAN School Board Journal

WM. GEO. BRUCE } Editors
WM. C. BRUCE }

EDITORIAL

SECURITY IN TAX LIMITS.

During the past decade many school systems throughout the United States have, owing to abnormal conditions, felt the restrictions of a fixed tax limit. Boards of education have felt the embarrassments likely to arise when the school needs exceed the funds legally provided.

But, tax limitations have their value. In fact, where other departments of government must be provided for there must be some division of the tax funds so as to provide adequately for all. And finally the entire cost of government must be fixed with a due regard to the tax ability of man and property.

The zeal on behalf of public education occasionally prompts some one to hold that all limitations ought to be removed, and that the schools should receive what they need regardless of the customary divisions of public funds.

The New York State Federation of Labor in its platform advocates the exemption of school funds from tax limits. It says:

"The money for school purposes in the cities is raised by taxation on real and personal property. There is a state law preventing municipalities from appropriating during any one year over two per cent of the assessed valuation of the city. The funds for the schools are included in this appropriation. This condition often brings about a curtailment of funds for school purposes due to the necessity of awarding large sums to other departments; it has always brought conflict between city officials and members of boards of education, and has led to a rivalry of various municipal departments."

The spirit which animates this view is fine and deserves commendation, but here it should be remembered that the very fact that two per cent of the assessed valuation of the city goes to education is a guaranty that other governmental departments cannot deprive the schools of their share.

The fact that here and there the percentum fixed is not sufficient, must find its adjustment in a flexible state distribution of school moneys. The inequalities arising out of wealthy and poor districts can only be met by a liberal state tax fund equitably distributed by those best informed as to relative conditions and needs.

But, in the nature of things tax limits have their value in that they recognize the ability of the tax sources on the one hand, and guard against possible extravagance on the other.

TIMELY SCHOOL BOARD POLICIES.

In the history of school administration there is probably no chapter more replete with intricate and vexatious problems than that covering the experiences of the past eight years. No previous period has demonstrated so many sudden changes, extreme situations, and profitable lessons.

What at a former period might have seemed impossible, or at least highly improbable, really

happened. The disciplinary joints became loosened, disrespect for authority came to the surface everywhere, and organization seemed to have weakened its potency and power.

No one, for instance, ten years ago could have imagined that teachers would go on a strike, not only for higher salaries, but in protest of established authority, or desert their post of duty in wholesale numbers to secure a higher wage in office or factory service. No one would have believed that pupils would go on a strike en masse, because the school board had dropped a teacher or principal for the good of the service.

But, all these things happened. And coupled with these things came the financial situation. School boards were obliged, in order to keep the schools running, to cast to the winds all observance of previous rules and regulations. They ran wildly into deficits and into contracting of illegal obligations. They were actuated by the emergency of the hour rather than by an observance of established usage and law.

And yet, all this was highly laudable because it held to a paramount duty of citizenship, namely, to prevent the children from running riot, and to keep them at school. There were, here and there, some weak school boards who yielded to striking pupils and teachers, or who listened to a disgruntled taxpayer, but on the whole the rank and file clung steadfastly to a public duty. The schools were kept agoing.

In the light of all that has happened in the past there can, however, be no lessening of the vigilance to be exercised at the present time. Every period has its own problem. The present is not devoid of them. If the authorities succeeded to maintain good schools in time of stress and storm, they must maintain better schools in time of calm.

F. G. Blair, state superintendent of Illinois, says: "The situation does not call for radical retrenchments and reactions. It calls for the soundest business principles in the preparation of budgets and in the expenditures of moneys raised by taxation. Every dollar raised for public education should be applied directly to that object. Unsparing and relentless criticism should be centered against every person who diverts any of this public money from its regular channels."

The watchword of the hour must not only be economy, in the sense that school budgets must be kept at a minimum, but rather in the thought that every dollar expended shall bring a maximum return in service. It is up to the professional factors now to give the best that is within them, and to reinforce that spirit which holds high the mission and purpose of teaching as an indispensable service to the Republic.

LIVING STANDARDS FOR TEACHERS.

There was a period in the life of the American people when they turned to Europe for suggestions and guidance in many of their affairs. Then came the consciousness that America has ways of its own, and that there was some virtue in originality. The western states, specially, broke away from the traditions of the eastern states, and gradually came the realization that out of it all had come standards and conceptions far above those of an old world.

In many countries of Europe, for instance, the teacher is provided with a home in the schoolhouse by the government. In other words, the teacher must reside where the government wills it. In America no such forms of paternalism are attempted. The teacher is an individualist who seeks his or her home in accordance with local conditions, or personal preference.

In granting this freedom of action we respond to the American spirit, and depart from an old

world custom. But, in doing so we must also be mindful of the fact that the full measure of value of our own system is not attained by the mere fact that it exists. In fact, it may have its drawbacks unless we recognize the needs of teacher individualism and independence.

This simply means that the American teacher must be compensated in keeping with the standards that he or she ought to maintain. In fact, our Americanism in this direction should insist upon standards of living that will insure us the highest type of intellectual worker.

"Our attitude towards the teachers would seem to be based on a belief that he (more often it is she) is a kind of literary recluse, whose needs are few, and whose mind is so engrossed by his books and his work that he has no thoughts of money or the things money will buy. A sort of glorified being who lives in the clouds and for whom the dinner table has no attractions." So speaks the editor of the *Sun*, Columbus, Georgia.

"As a matter of fact, the teacher is just as human as the rest of us and his human needs are as great as those of the rest of us. Indeed, by reason of his profession, he is forced to adopt an exceptionally high standard of living. He must live in a good neighborhood, he must dress well, he must take part in various civic enterprises, and, in order to keep abreast of the times and of pedagogical methods, a considerable portion of his income must go for books and current literature. Then, too, if he expects advancement in his profession, he must, every year or so, add to his training and equipment by taking special courses in some university. Instead of not having any great need of money, the teacher, if he is the right kind of teacher, has a considerably greater burden of necessary expense than a person of similar income in the business world."

When we look about the world and note the manner in which the several nations dispense education and the standards of those who are engaged in dispensing the same, we must come to the conclusion that America can only demand more if she gives more. The editor above quoted says: "The teaching profession should be made just as attractive, from a financial standpoint, as is possible. We need the highest class of young women as the guides and mentors of our youth—and we won't get them, and keep them, unless we make it possible for them to live comfortably and store up a competency for their later years. Niggardliness toward the teacher will reflect itself directly in the intellectual development of the next generation."

In the maintenance of its system of popular education let the American people give expression to that spirit which has made it powerful and great, namely, to reach its aims regardless of old world traditions. Let it become an American characteristic to command the highest teaching service by making this possible in the treatment accorded to the teaching profession.

SCHOOL BOARD VISITING JUNKETS.

There was a time when it was quite popular for school board building committees to visit other cities in order to gain ideas for proposed new structures. The custom has waned considerably in recent years, and it is semi-occasionally only that a school board sends a committee to inspect new school buildings in other cities.

The reasons for this change are two-fold. It is seldom that journeys of this character have not been followed by criticism. The trips so undertaken are made at public expense and, inasmuch as travel is considered a pleasurable privilege, there has always been some one who

dubbed the journey as a "junket" and an imposition on the taxpayer. The actual benefits likely to come out of an inspection journey received less attention than the possible fact that the taxpayers had been imposed upon.

The school board at Harrisburg, Pa., recently voted \$545 to cover the cost of two committees who are to inspect new school buildings in distant cities for the purpose of gathering ideas for a proposed high school building to be constructed at some future date in their own city. The minority was bitterly opposed to the move and dubbed the enterprise a pleasure junket.

The second reason for the elimination of the inspection journeys must be found in the advent of the expert schoolhouse architect. He has risen in prestige and service in the school administrative horizon, and by virtue of his high standing and reputation, enjoys the confidence of the school authorities.

He virtually brings the modern schoolhouse with him and places it before the school authorities, and renders it unnecessary for the school authorities to go to distant cities looking over new school buildings. He comes equipped with all the necessary information and data regarding modern school structures. He will teach more in one hour than can be gained by a month's travel.

There is one feature in this connection which is yet not commonly recognized, and that is this: Every new schoolhouse project presents its own problems, due to immediate environment, location of site, and general local population, financial and educational conditions. The expert here comes into play. He knows that he cannot advantageously place an exact duplicate of a school of a city upon a given site of another city. He also knows what may prove utilitarian in one locality may prove a waste in another. He brings all considerations to his service in evolving an acceptable plan.

We live in an age of specialization, and must rely upon those who devote their lives to given branches of study and service. The average school board member may gain much general knowledge by inspecting a schoolhouse in neighboring cities, and yet remain wholly uninformed as to the specific innovations that would prove the most advantageous in his own city. Only a complete study of a local situation made by an expert schoolhouse architect can devise plans that will fit the particular site and neighborhood, and in the end prove most utilitarian and economical.

COMMERCIALIZING SCHOOL TEXT-BOOKS.

The American people recognize, as no other people on earth do, the purpose and value of advertising. This recognition has given modern advertising a fixed place in the field of commerce and trade, both as to its mission and the mode and manner of its distribution.

And while advertising is in place within its legitimate scope, it may be very much out of place when it goes beyond that scope.

A salesman may properly exploit a new brand of soap in a store and yet be grossly out of place in exploiting his business from the church pulpit. In the fitness of things, we have a definite use for both store and church and for salesman and clergyman. But, each must serve in time and place according to accepted usage and custom. A sense of propriety rules here.

But, imagine a school textbook telling the pupil what baking power his mother ought to use, what make of washing machine she ought to install, and what brand of tobacco his father ought to smoke. The inappropriateness of this

sort of thing would at once become apparent. Textbooks are not supposed to tell people what and where to buy. Their function does not run in that direction. They serve a higher objective.

And yet this very thing is happening. School textbooks are being commercialized for advertising purposes. Some genius recently figured out that the school book publishers, who have lost money in recent years owing to the increased cost of production and low pre-war contracts, might recoup themselves by selling advertising space in textbooks. And lo and behold, some publishers fell a prey to the lure. Advertising actually went into popular schoolbooks.

The Indianapolis *Times* of September 16, 1922, reports that "Payment for books bought for the public schools was stopped today by W. J. Twine, business director of the school board, because the books contain advertising. Each of the books contains two full page advertisements in color, one in the front and one in the back. The first is that of a widely advertised baking powder, and the other that of a table dessert."

The editor of the Indianapolis *News* says: "The technical excellence of the advertising display is remarkable. The child is directed to draw a picture of a doughnut, and is cautioned to be very careful, for it is extremely difficult to make a picture of a doughnut which will look better than doughnuts made from So-and-So's baking powder. It is presumed that the child, after failing to approximate the excellence of the doughnut used in the advertisement, will immediately be overcome by a desire to eat doughnuts, and will run home to its mother with a rush order for doughnuts made with So-and-So's baking powder, perhaps even crying for the doughnuts in the name of art."

But, it is not necessary to elaborate on the probabilities of the situation in order to argue against the introduction of advertising as a feature in textbook literature. There are state laws against that sort of thing, and it is not likely that the practice will survive. Even if there were no laws on the subject, it is reasonable to assume that the school authorities would not tolerate, for one moment, the use or misuse of school textbooks as a vehicle for promoting private business enterprise.



THE RAMIFICATIONS OF CITY HALL POLITICS.
(Copyright, Chicago Tribune.)

RELATION OF SCHOOL BOARD AND TEACHER.

The member of a board of education, who desires to be informed on various phases of the

school system, may welcome a teacher who comes to visit him for the purpose of discussing school matters. He has the angle provided by the superintendent and the general public and is, therefore, willing to get the teacher's side on pending school problems.

The practice of the individual school board member and teacher confabs has, however, certain drawbacks. The teacher who goes to see a school board member does not always confine herself or himself unselfishly to views on the common good of the school system. She or he may submit matters which come clearly within the province of the superintendent, or may even advance views designed to weaken the official in the eyes of the governing body.

Whatever may be the purpose of the teacher's visit to the individual school board member, it follows that the superintendent is the official connecting link between the school board and the school system. On the other hand, the teachers must recognize the principals as their immediate superiors, and the principals in turn must recognize the superintendent as their chief.

The school board member who invites teachers and principals to provide him with "inside information" is encouraging trouble and a system of espionage in the smaller affairs of school administration, and at the same time undermining the disciplinary regulations of a well governed school system.

At a teachers' meeting held at New Bedford, Mass., Superintendent True C. Morrill recently took occasion to refer to the habit which some teachers indulged in, namely, of calling on school board members in matters that clearly come within the province of the superintendent.

Mr. Morrill said: "I wish to speak of the order of appeal in the school system. It is natural to talk with members of the school board whom you know. It is alright, also, to come to me. It is humiliating for a member of the board to come to me and put the tweezers on the head of the schools."

He illustrated his point by telling of a teacher who had attempted to bore a school board member with her views and her troubles. Being a busy man, and recognizing the ethics of the situation, he promptly referred her to the superintendent.

"If the teacher had come to me," said Mr. Morrill, "I could have settled the matter in ten minutes. This was a waste of the board member's time. If you come to see me, you deserve courtesy and consideration. Don't bother members of the committee. If you don't get satisfaction from your principal come to me. I prefer that you make your appeal in the right way."

The school superintendent who pursues a sound policy in the administration of the schools, who deals with equity and fairness with those about him, and maintains a sense of proportion in all relations affecting his office, has nothing to fear from the small gossip that floats about. It may reach the ears of the school board member, but, as a rule, the latter usually knows what value to place upon loose talk and selfish trouble makers.

The school board member who has a proper understanding of the recognized fundamentals in school administration, and who makes a due allowance for the personal interest side in the relations of life, is not likely to be stampeded into unwise action. The minor considerations which arise in every school system, and which are likely to be enlarged upon by passing gossip, cannot sway the sensible school board member from the larger purposes of his high office.

The Western School Man as a Type

T. S. Kerr, Bonners Ferry, Idaho.

On the eve of the election of 1912, Colonel Watterson startled the democratic party by announcing that his judgment had erred in supporting Woodrow Wilson, that he had believed the latter to be a statesman of rare ability, but that later he had discovered him to be a mere schoolmaster. These two stations in life were vastly different according to the Colonel's inference; one represented brains, executive ability, leadership, a grasp of world problems; the other something less, just how menial a rank of intelligence the Colonel did not make clear.

The public schoolmaster of a half century ago was decidedly different than his successor today. He was more of a dignified, solemn, cut-and-dried type of man who knew nothing outside of the schoolroom and it too frequently happened he knew nothing about the teaching process. Scholastic attainment was very often the last consideration in hiring him. An incident is told of a middle-aged man who applied in the early seventies for a position as teacher of a rural school in Pennsylvania. The trustees asked him three questions to test his ability. They were: Do you believe in God? Are you a member of the Methodist church? Will you read the Bible and offer prayer each morning in the schoolroom? All the answers being in the affirmative, the candidate was ranked one hundred per cent efficient and was employed.

Even the modern schoolman in the smaller communities of the east is found today at times strongly entrenched in conservatism. As a student of psychology he must to some extent at least respect the public opinion of his community. Competition is keen and he knows too well that a single misstep will cost him his position. Under these conditions he is necessarily more of a follower than a leader, and he too often lives up to his reputation of being ignorant of everything except school matters and of isolating himself from community life.

The Schoolmaster of the West.

In this respect he is less fortunate than his brother in the west. David Starr Jordan has pointed out that the best blood of the nation is in the west. We might add to this that the most progressive type of school superintendent is in the west. That daring adventurous spirit that felled the forests and reclaimed the deserts of the great west is today finding expression in the civic and educational life of this new land and in no phase of western civilization is this more in evidence than in the type of men who head the public schools.

When the Russell Sage Foundation made its report two years ago on the public school systems of the United States it ranked Montana first. It is interesting to note that Montana also ranked first in point of teachers' salaries. If Montana has the best system of schools it is only fair to assume that her superintendents are of an exceptionally high type of men. What, then, is this new type of superintendent that Montana and her sister states have produced?

The first quality deserving of special emphasis is leadership. In one of the northern counties of Montana the principal of the county high school made a survey a few years ago of the high school attendance throughout the county. He then rode a bicycle over the entire county and interviewed every rancher who had an eighth grade boy or girl. Not only did he present the advantages of higher education to these outlying people, but he used the art of salesmanship and he literally sold the high school course to these people. The attendance doubled

the first year. The enrollment has now increased from 150 to 700 and this county boasts of having a larger percentage of eighth grade graduates in high school than any county in the United States.

The schoolman in the west is expected to maintain his leadership by means of the most advanced ideas on education. If he has had proper training and a vision of the true relation between the school and the community he will find little difficulty in putting "across" a good school.

The citizenry of the west in general want their youth to have the best educational advantages that money can buy. It is here that we find the high schools in the small villages offering a variety of courses and doing a quality of work that is not inferior to that done in our largest cities. The realization on the part of the school superintendent that the community looks to him for leadership along educational lines is conducive to new ideas and greater action.

Stimulates School Support.

In one of the smaller counties of the northwest the only high school is located at the county seat. Three years ago this high school had an enrollment of 75. A new superintendent was employed who surveyed the situation and then started a campaign to build up the high school. The first step was to increase the field of service of the high school by adding new courses of local value and by broadening the scope of the manual training and home economics courses already installed.

This accomplished, plans were formulated to direct public opinion and to create an interest in the schools. A day was set apart twice each year known as patrons' day. At this time the work of the pupils was placed on exhibit and a special invitation given the parents to be present. Most of the day was devoted to observation of the teachers and pupils at work. The regular work of the grades was thus carried on in the presence of the guests. This was followed by a short program, inspection of the building, and exhibits, after which refreshments were served, the latter being offered as a drawing card to get the people out. During these sessions an hour was set aside for consultation

purposes and every parent was urged to consult the teacher regarding the progress of his child.

The report of this superintendent shows that the interest in these patrons' days has been constantly growing until now he can expect at least ninety per cent of all patrons present. This superintendent also devised a plan to interest outside pupils in a high school education. He set apart a day in the spring and invited all eighth grade graduates in the county to be guests of the local high school.

These pupils from the outlying communities were billeted out among the high school students, were entertained with a track meet program, a moving picture film and a banquet by the domestic science girls. They returned to their homes the following day as boosters for this high school. This superintendent, by assuming the role of leadership, doubled the enrollment of his high school in three years and had the satisfaction of having his high school selected as one of the first seven in the state for membership into the Northwest Association of Secondary Schools and Colleges.

Natural and Human.

The western schoolman is a genuine human being and is treated as such by his community. Church is not the only place he is allowed to go with the approval of his community. Instead he is solicited to take an active part in the work of the local chamber of commerce. He is at least privileged to enter into the social life of his community though his choice should lead him to card parties and dancing parties. He may even enjoy a good cigar in public without being frowned upon by his associates. At a school masters' banquet held recently in one of our western states during the state association meeting of teachers, 200 school superintendents were present. The last course, cigars, was enjoyed by all but one.

The old idea that a school superintendent must appeal to the pupils as one immune from any of these human weaknesses as an example for them to follow has been exploded. The father who has imprinted his character on the life of his young son more than any one else can hardly expect a stranger, though a schoolman, to exemplify a higher standard before his children than he himself has done. Being thus allowed to live his own life, the school superintendent has courage and convictions which directed along school lines is reflected in the progressive atmosphere of the school.

The modern schoolman must possess a high degree of courage. His vision is not limited to the four walls of his school building, but he considers himself to be the executive head of an educational machine which if properly directed will improve the citizenship of his community. It is not sufficient for him to know Latin and Greek and how to teach them. Nor is it enough for him to handle his teachers tactfully and his patrons diplomatically.

The one job allotted him is to make his school serve the community. It is the fulfillment of this task that tests his courage, for once he departs from the regular routine conservative path he meets with opposition. The old type of school with its limited opportunities is good enough for most of his patrons. But the up-to-date school superintendent will be able to mould public opinion unconsciously to the idea of a bigger, better school. This is the last and final test of a progressive superintendent.

Anyone properly trained and with experience in supervision and administration should be able to maintain a good school. But it is the super man, the latest model of a superintendent, who in addition can build up the school, make it serve the entire community and at the same time direct and control public opinion along educational lines.



GEORGE W. FRASIER, Ph.D.,
Greeley, Colo.

The splendid record made by Dr. Frasier as head of the research department of the Denver city schools has led to his appointment as Dean of the Graduate School of Education in Colorado Teachers' College, Greeley.

Another testimony to the supremacy of the Victrola XXV—for out of doors!

MANY PEOPLE WITNESS MAY DAY PROGRAM

At least 750 persons attended for third and fifth places. Ed the May day exercises by the ward Williamson, of Central, won school children of the city at the this race. Sheridan, Eyles, came

May Day
Exercises

Grafton, West Virginia
Public Schools
Using the

Victrola XXV

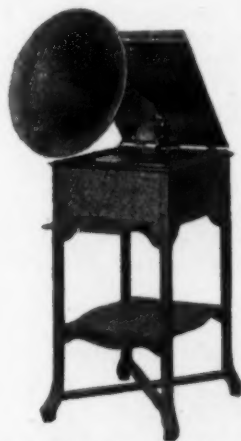


announcement of the exercises was in only a few seconds more time a print.

At the beginning of the program and while the children were being assembled, the large crowd was entertained by several victrola selections reproduced by a large concert machine loaned by the W. F. Frederick Piano company store here. The big instrument sent the notes sounding loudly over a large area and the several selections were heard by everyone within the boundaries of the Legion field. The music was also kept up while the various exercises were being performed.

The racing contests then followed. The West Grafton children became exhausted while performing in the hot sun, and one lady in the crowd was temporarily overcome by the heat, but outside these mishaps there was nothing to mar the success of the event. Mr. Lewis, the high school authorities and all others who par-

We could not reproduce this photograph large enough to give an adequate idea of the crowd gathered at Grafton's May Day Fete; yet a single *Victrola XXV* (scarcely visible in the picture) furnished the music for hundreds of children all over the large field to dance and perform their exercises!



Victrola XXV
The Standard
School Instrument

Educational
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Victor Talking Machine Co., Camden, New Jersey

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"Nothing for Nothing" applies in every realm of effort. But the man who makes an unwise purchase buys something that—like a deficit, is less than nothing; for it requires additional outlay in later years.

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from our quarries represent the acme of economy and educational efficiency. They require no upkeep, while artificial boards must be resurfaced, repaired and replaced regularly. In comparison, the word "economy" is defined in its truest sense. Slate being non-porous does not absorb anything, so cannot disintegrate. It is finished with a beautiful, velvet smooth surface that does not become gray with age or use; that makes writing a pleasure and reading a relief to the eyes of the students and teachers. That is why our Natural Slate Blackboards combine the utmost efficiency with the utmost of economy.

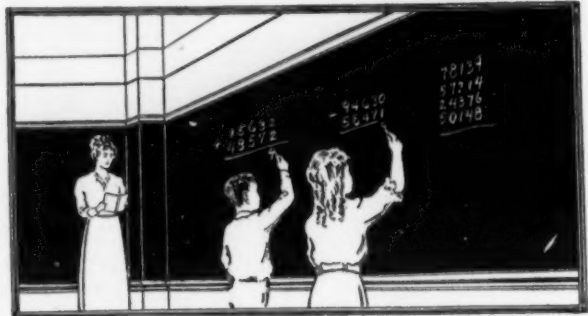
These are but a few of the advantages. Before you spend a dollar for Blackboards, you should read our book "How to Judge, Specify and Install Blackboards." Send for it today.

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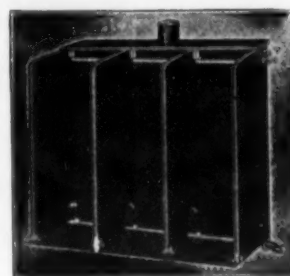
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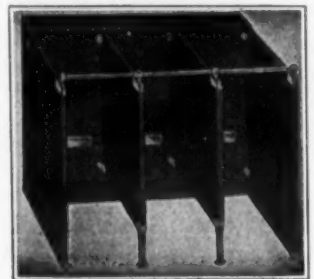
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The "KEENAN KIND" Sanitary Slate Fixtures provide perfect Sanitation and Ventilation.



B-11 1/2 S—Urinal



B-26—Closet

Large Illustrated Catalog for the asking

KEENAN STRUCTURAL SLATE COMPANY, Inc.
First National Bank Bldg., BANGOR, PA.

School Finance Notes

Cost of Education at Bridgeport.

Assistant Secretary Wynkoop of the Bridgeport, Conn., School Board has brought the school expenses of that city, ending with July 1, 1922, down to percentages as follows:

The grand total expenditure for the year's maintenance of schools was \$1,631,307.18, an increase of \$58,692.72 over a year ago. The total represents the combined costs of both day and evening schools.

The above figure represents a per capita cost of \$61.78 for the year.

Of the total cost of maintaining all schools the following is an analysis of the schools' distribution.

Instruction	76 %
Superintendent's Office	1 %
Board of Education Office including stock room inventory	2 %
Instruction supplies	3 1/2 %
Operation	10 1/2 %
Maintenance	5 %
Other expenses (Misc.)	2 %
	100 %

Per Capita Costs.

Administration	\$ 1.32
Supervision .....	.60
Instruction (Salaries)	45.84
Textbooks .....	.46
Instruction Supplies	1.33
Operation (Water, Heat, Light and Power, Janitor's Salaries, Janitor's Supplies) ..	6.45
Promotion of Health .....	.32
Maintenance	3.19
Other expenses (Pensions, Transport, Misc. Items)	2.29
	\$61.78

The per capita cost for high schools was \$89.93; evening school \$6.05, and the Normal school \$226.77.

BUILDING AND FINANCE.

—Roanoke, Va., has passed a million dollar school bond issue. With this fund 24 additional rooms have been added to three elementary schools, one eleven-room elementary building is being erected, and one twenty-room junior high, and one fifty-room senior high is under process of planning. The Roanoke School Board has for the first time a lady member—Mrs. Fleming R. Hurt.

—Wm. B. Ittner of St. Louis, Mo., has been employed by the Winona, Minn., school board as consulting architect in connection with a proposed school building program involving one million and a quarter dollars.

—Buena Vista, Va., is providing for a \$60,000 high school to be ready for 1923-24 school term.

—Marshall, Mo., is just completing two modern one-story elementary buildings to take the place of two old buildings which were razed at the close of the last school year. Plans are just being completed and the contract will soon be awarded for a combined junior-senior high school to replace the high school building which was destroyed by fire last December. The elementary schools are to cost \$50,000 each and the high school about \$225,000. The architects are Owen, Payson & Carswell of Kansas City, Mo.

—The Barret Manual Training High School of Henderson, Ky., is undergoing some extensive work in equipment and enlargement of building. The work was made possible by the gift from the original donor, Mr. James R. Barret of Henderson, who, early in the year, gave the school \$5,000 for this extension work. The entire basement of the original building has been worked over and has been constructed into a beautiful cafeteria with full equipment, able to take care of several hundred pupils for their noon luncheon. Part of the building occupied by the old cafeteria is being worked over and in it is being placed manual training work which will now be extended to occupy a total space in area of 40 x 60 feet. More tables will be added to the equipment and the machinery replaced and made to

be able to do manual training work up to the standard of any other school at least in the state of Kentucky.

—The school district of St. Charles, Mo., voted \$200,000 for a new high school building. Wm. B. Ittner of St. Louis has been selected as the architect for the building, and is completing plans and specifications.

—Roy W. Elliott, formerly of the University of Michigan, has been appointed superintendent of buildings and purchasing agent for the Topeka, Kansas, School Board.

—At La Junta, Colo., a handsome new high school building was opened at the beginning of the present school year. It was erected and furnished at a cost of \$250,000, and is one of the finest in the West. It is constructed on the unit plan with three separate buildings connected by cloisters. In addition to classrooms, laboratories, shops, etc., it has a splendid cafeteria and an auditorium which will seat 1006 people. The stage is about 65 ft. by 70 ft. in size and will serve as a gymnasium. It is splendidly equipped with scenery and will be used as a community center. Mr. G. W. Inman is high school principal.

—The board of education of the Council Bluffs, Ia., public schools is considering a school building program for the period 1922-1930, for which purpose Supt. E. E. Lewis of Rockford, Ill., prepared a tentative outline. The suggested building program contemplates two junior high schools, a senior high athletic field, a senior high school gymnasium, and additions to six elementary schools.

—Cleveland, O., has spent over \$3,000,000 on new buildings in the last six years, yet rapid increase in population has filled them all as soon as erected. This means a gain of 380 per cent in enrollment in seven years.

—Jamestown, N. D., has begun the construction of a junior high school at an estimated cost of \$250,000. Shannon, Boyd & Boyd of Jamestown are the architects.

—Reading, Pa., will build another junior high school next year at a cost of \$800,000.

—The voters of Abington, Pa., approved a loan of \$450,000 last November. A building

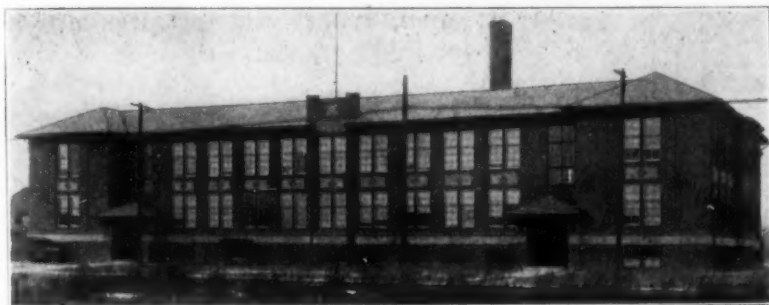
(Continued on Page 70)

Danger-proof to Careless Children—The Safest Switchboard for School Use



The problem of lighting control in school auditoriums is not simply that of selecting the most effective system—it has the added complication of finding the **safest** system. It is within reason to assume that children may often have opportunity to handle the auditorium switchboard, and as a safeguard against their careless fingers the Major System of lighting control is the logical specification for school auditoriums.

Major pre-selective Remote Control apparatus cannot do injury or be injured by careless meddling, and can be locked against unauthorized handling with any combination of light on. Any or all of the lights under control of the Major System may be instantly turned on from any desired number of points anywhere in the house. Major System advantages listed below serve to further prove the superiority of the Major System of lighting control for school auditoriums. If you have in work or in prospect a school job, write us for further information.



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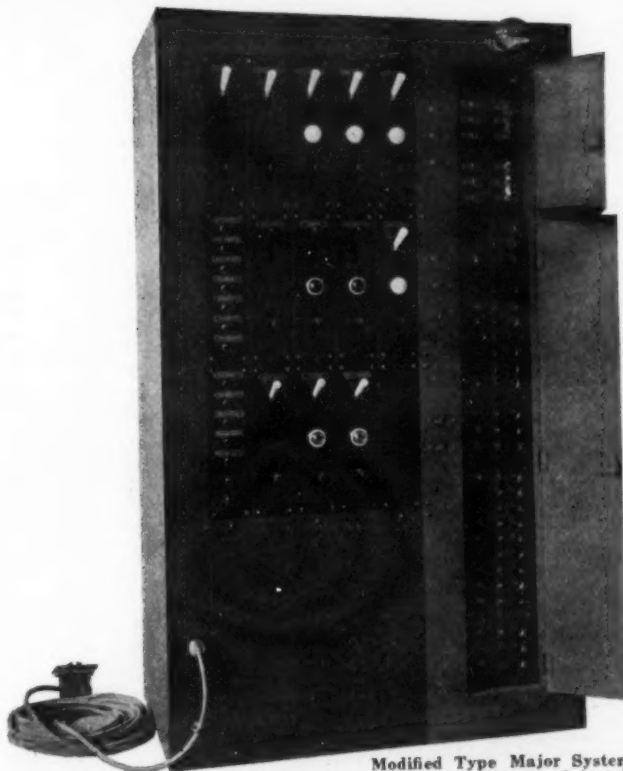
Detroit, Minneapolis, Dallas, Kansas City, Cincinnati, Chicago, New Orleans, San Francisco, Los Angeles, and Seattle.

MANUFACTURERS ALSO OF:

Triumph panel boards and cabinets, hanger outlets, reversible cover floor boxes and A.C. and D.C. Distribution Switchboards.

PARTIAL LIST OF MAJOR SYSTEM SCHOOLS:

Cass Technical High School, Detroit, Mich.
Nicholas Senn High School, Chicago, Ill.
Commercial High School, Omaha, Neb.
High School, Aurora, Minn.
Central Junior High School, Saginaw, Mich.
Central High School, Detroit, Mich.
Music Hall, University of Minnesota, Minneapolis.
Lakeview High School, Chicago, Ill.

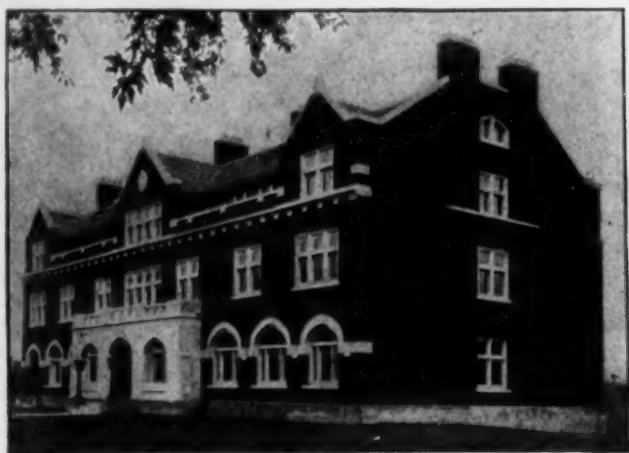


Modified Type Major System and Magazine Panel installed in Joyce School Auditorium.

MAJOR SYSTEM ADVANTAGES:

Remote Control
Extended Remote Control
Cumulative Control
Pre-selection
Flashless, Noiseless
Switch Operation
Minimum Stage Space
Unit Construction
Experienced Design
Perfect Workmanship
Highest Grade Materials

The Major System of Auditorium Lighting Control



Conservatory of Music, Northfield, Minn.
Sound-proofed with Cabot's Quilt.
Patton, Holmes & Flinn, Architects, Chicago.

Sound Proof Music Rooms

All school-rooms need sound-proof floors and partitions, but music rooms most of all. The above building was sound-proofed with

CABOT'S QUILT

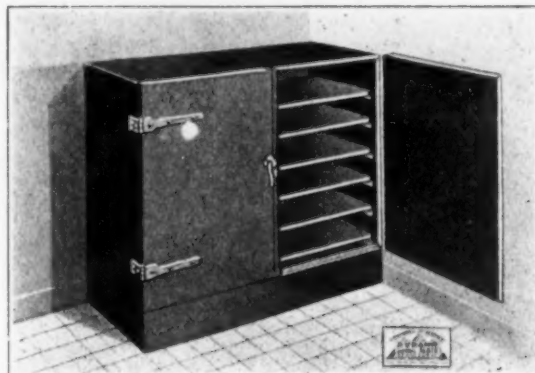
and the directors report the usual "perfect results."

Sound-proof, Decay-proof, Vermin-proof and Fire-resistant—the only material that meets all requirements.

Samples and full details on request.

Samuel Cabot, Inc., Mfg. Chemists, Boston, Mass.
342 Madison Ave., N. Y., 24 W. Kinzie St., Chicago.

Moisture and Specimen Cabinets



Structural Slate

Cabinets of slate with slate doors and slate shelves are especially well fitted for use in school laboratories where the storage of delicate instruments and specimens either directly on the shelves or in glass bottles or tubes is necessary. Slate, because of its non-staining qualities and because it is so easily cleaned, makes an exceptionally suitable material for this purpose.

The Structural Slate Co.

PEN ARGYL, PENNSYLVANIA

(Continued from Page 68)

program was adopted, the first fruit of which is an elementary school building of ten rooms, with auxiliary rooms such as an assembly room and gymnasium, manual training, cooking, etc. This building is to be of the one-story type, built of brick. Heacock and Hokanson, Philadelphia, are the architects. It is to be completed by January 15, 1923. Other plans include an addition to the present high school building, also extensions to three grade school buildings. The largest of these latter is at the Glenside school where a separate building will be erected alongside the present twelve room building to provide an auditorium, gymnasium, and rooms for special activities besides the needed additional classrooms.

—The city of Sheffield, Ala., has sold \$110,000 worth of school bonds. The money is to be used in building an annex to the high school and the erection of a school for colored children.

—Bay City, Mich., has completed a central high school building at a cost of \$1,500,000, equipped. In addition to the usual academic work which has heretofore been offered, a very completely equipped vocational department has been added which will run under the direction of Mr. Hollenbach, former head of the Burt Manual Training School, Saginaw, Mich. A junior college will be housed in the same building with an enrollment of 82 students.

—At Chariton, Iowa, a new high school building is in process of construction at a cost of about \$250,000. William A. Gordon of Des Moines is the architect.

—This year's building program of the Whiting, Ind., schools includes an eight-room grade building, a new central heating plant, and a new junior high school. The latter building includes gymnasium, swimming pool, lunch room, and auditorium. A gymnasium for girls occupies the story above the heating plant. The grade building and heating plant are now virtually complete. The junior high school will be ready for use at the opening of the second semester in February. The entire program represents an expenditure of more than a half million dollars.

—The Bath, N. Y., Union Free School, District No. 5, has voted a \$225,000 appropriation for a new schoolhouse.

—Decatur, Ala., has sold school bonds to the amount of \$125,000, and will begin at once the erection of a modern high school building.

—The Madison, Ind., School Board is constructing a new graded school building with thirteen classrooms and one assembly hall above ground. There will be manual training and domestic science departments, heating apparatus, toilets, and playroom in the basement. The building will cost \$110,000 complete. Herbert Foltz of Indianapolis is the architect. The officers of the board are S. J. Bear, president; J. E. Reed, secretary; W. C. Roth, treasurer; E. O. Muncie, superintendent.

—The school board at Ironwood, Mich., voted to build a new high school of the junior-senior type to accommodate 1400 pupils, at an estimated cost of approximately \$750,000.

—The Cedar Falls, Iowa, School Board let a contract for the erection of a \$140,000 junior high school and grade building. The bond issue of \$140,000, bearing 4% per cent, and running for twenty years, was sold at a premium of \$6,650.

—A high school building, modern in every detail, and estimated to cost about \$150,000, is now under course of construction at Laurinburg, N. C., and will likely be ready for occupancy the first of the year.

—Palmyra, N. J., a suburb of Philadelphia, has just completed a new high school building constructed of concrete and steel at a cost of \$180,000. Rooms for vocational work, cooking, sewing, mechanical drawing, library and manual woodwork have been provided. The building will also be equipped for moving pictures, and showers for both boys and girls.

—Burkburnett, Texas, has voted \$150,000 for a high school. The local tax rate for school purposes has been raised from 50 cents to \$1 on each \$100 of property valuation. C. H. Page & Brother of Austin, Texas, have been chosen as architects.

—Kaufman, Texas, has a \$100,000 high school under way.

—Wichita Falls, Texas, is building a junior college as a part of the local school system. The sum of \$850,000 will be expended. Wm. B. Ittner of St. Louis, Mo., has been chosen architect. When the building is completed the schools will be operated on a 6-3-4 plan which will include two years of college work. The school board is also erecting two ward buildings of the one-story type. They are provided with auditoriums and cafeterias, and are to be surrounded by large grounds. The board has adopted the policy of enlarging school grounds and has recently purchased six acres.

—A handsome elementary school building was completed at Lynchburg, Va., at a cost of \$156,000. The immediate site of the building with a lawn in front cost \$17,000. In the rear of the building there is a park of 37 acres with a large playground. The building is a three-story structure with thirteen classrooms, a manual training room, a domestic science room, kindergarten, an auditorium seating six hundred, a gymnasium, and offices for principal and teachers.

—Terre Haute, Ind. The school board has under construction a gymnasium building, a grade school and two annexes. The Lincoln School, which has just been completed, has eight classrooms and cost complete \$100,000.

—The Aurora, Minn., high school opened this year in a new building, giving ample opportunity for the most modern types of secondary work. It is well adapted to the supervised study plan which has been put into operation. The building has an excellent auditorium with large, well-equipped stage and motion picture equipment, good gymnasium, ample locker rooms, swimming pool, forge and machine shops, wood-working shops, a print shop, and in connection with the agricultural department a dairy plant and a conservatory. The home economics department contains, beside cooking and sewing rooms, a model apartment, a laundry, and a cafeteria.

—Milwaukee, Wis. The board of directors has adopted a budget of \$5,014,376, of which the city will be required to raise the sum of \$3,628,568.

(Concluded on Page 75)

Be a Bystander and Witness the Narrow Escapes



Tomorrow, at recess, stand across the street from your school playground and observe how the children's lives are constantly endangered at play. Narrow escapes from cars almost every minute. Motor-

ists are often careless. And children are always heedless of danger in the excitement of play.

All school playgrounds, abutting on streets, should be enclosed for the safety of children. To provide protection from street dangers, while at school, is a responsibility which rests upon school officials. Cyclone Fence affords adequate protection for school needs. Strong, sturdy, kick-proof fence. Flexible and springy when weight is projected against it; recoils to its natural position, stays tense, never sags. Extremely durable and distinctively beautiful.

When schools are enclosed with Cyclone Fence, children come and go through designated exits instead of scattering in all directions. Promotes system and order—an influence for good training.

We will gladly submit estimate on your requirements, and when fence is to be erected our engineering and construction departments will gladly co-operate with you to facilitate the work. Consult our nearest district office. Write for catalog S.B.J.11.



CYCLONE FENCE COMPANY

General Offices: Waukegan, Illinois.

Factories: Waukegan, Ill.; Cleveland, Ohio

Newark, N. J.; Fort Worth, Texas.

DISTRICT OFFICES: Eastern Division, New York City; Mid-Western Division, Waukegan, Cleveland, Detroit.

WESTERN DISTRIBUTORS: Standard Fence Company, Oakland, San Francisco, Los Angeles, Northwest Fence and Wire Works, Portland, Oregon.

CYCLONE FENCE

THE "EMPIRE" MOVABLE ADJUSTABLE

EXCLUSIVE ADJUSTMENTS

GREAT ENJOYMENT



PORTABLE CHAIR No. 500

The roll seat and high back with reverse curves are absolutely form fitting and assure a most comfortable Veneer Portable chair. The No. 500 is made of 5 ply three-eighths inch veneers and finished in dark brown. In your Auditorium the No. 500 Portable Chair will give years of service and satisfaction.



TABLET ARM CHAIR No. 26

Is built like the Empire Movable and Adjustable Chair Desk, being reinforced by eight concealed steel tie rods running directly through the chair. This means great strength and service.

The Tablet Arm is so constructed to allow pupils to write to bottom of tablet without the chair back interfering.



PORTABLE CHAIR No. 525

This Portable Chair No. 525 is built for comfort and service. A reinforcing thin strip across the back adds strength. For a good, substantial medium priced portable chair, specify No. 525.

Portable Chair No. 515. This is identically the same as the No. 525 except it has a shorter back and lighter stretchers.

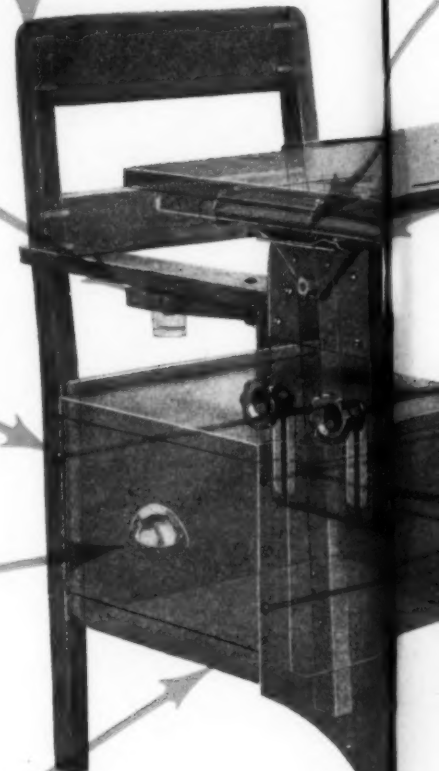
Spiral Dowel Construction—"Empire" Chair Desks are designed and built with the utmost care and attention to detail. The Spiral Dowel construction is but one of the many factors entering into its construction that guarantees its durability under most severe use.

Flexible Inkwell Arm—An exclusive "Empire" feature. When not in use the arm swings in under the desk arm, permitting pupils more freedom of action without fear of spilling the ink.

Steel Tie Rod Construction—Note the steel tie rod construction of the "Empire" Chair Desk. This coupled with the spiral dowel construction is the secret of its extreme durability.

Book Compartment and Drawer Pull—The entire space directly below the seat is devoted to an absolutely dust-proof book compartment, which is equipped with an artistic and durable drawer pull.

Heavy Wooden Brace Under Book Compartment—The brace is fastened to the back post by a steel tie hook and mortised into the pedestal in front.



Aug. 22, 1916
Patented July 3, 1917
Feb. 18, 1919

The "Empire" movable and adjustable chair desks are available in six sizes to fit the grade and so that they may be individually standardized on "Empire" movable chair desks for your school.

EMPIRE SEATING

ROCHESTER, N. Y.

THE E. L. GROVER CO.,
137 East State Street, Trenton, N. J.
SOUTHERN SEATING CO.,
121 Chartres St., New Orleans, La.
WEST VIRGINIA SEATING CO.,
Huntington, W. Va.
KENNEY BROTHERS & WOLKINS,
224 Congress St., Boston, Mass.

W. J. McILWAIN,
Little Rock, Ark.
SOUTHWESTERN EDUCATIONAL EXCHANGE,
Korber Building, Albuquerque, N. M.
NOLLA & MORELL,
Gonzalez Marin No. 17, Arecibo, Porto Rico.
PITTSBURGH OFFICE, H. Keefe, Mgr.:
921 Bessemer Bldg., Pittsburgh, Pa.

EMPIRE AND ADJUSTABLE CHAIR DESK

EAT LENGTH

UNEQUALED APPEARANCE

Improved Desk Arm Construction—The desk top of the "Empire" Chair Desk is both lifting and removable and this improved construction greatly adds to its strength and facilitates both operations. These features make the "Empire" chair desk as convenient for auditorium and community use as for classroom use.

Plus and Minus Adjustment—This adjustment permits the desk top to be moved either forward or backward to allow the correct distance of the desk top from the pupil.

Adjustable Hand Wheels—By means of these hand wheels adjustments are simply and easily made—no complicated mechanism—no tools needed to adjust.

Perpendicular Adjustments—This feature permits the desk top to be either elevated or lowered to meet the individual requirements of each pupil.

Steel Glides—The bottom of the legs are equipped with steel glides which permit the "Empire" chair desk to be moved easily and noiselessly.

X-RAY ILLUSTRATION SHOWS
DETAILS OF CONSTRUCTION.



PORTABLE CHAIR No. 535

Features of worth on Portable Chair No. 535 are the malleable hinges which hold the weight instead of the legs and binders and the screw and bolt fastening of the hinges. This means absolute permanency, no matter how many times the seat is banged or jarred. Constructed of either maple or oak as desired, and finished in dark brown or dark golden oak.

TABLET CHAIR
No. 17-R

Manufactured of quartered oak with heavy bolted construction this No. 17-R Tablet Arm Chair is designed and constructed to stand the use and abuse of the school-room. The Tablet arm is 10 x 23 inches, providing support for the entire arm when writing.



PORTABLE CHAIR No. 505

Many years of experience in what is most essential in a portable chair have developed the No. 505, a most practical and economical Portable Chair. Its construction is rigid enough to insure long, hard service. The weight does not rest on the binders as in most portables, but is firmly held by malleable hinges. This strengthens the whole construction.

ble adjustable chair is made
e grad and has five adjustments
indivally fitted.

mpire movable and adjustable
schol.

TING COMPANY

NEW YORK

SOUTHEASTERN SEATING COMPANY,
Rhodes Building, Atlanta, Ga.
SOUTHERN SCHOOL SUPPLY CO.,
Raleigh, N. C.
ILLINOIS OFFICE, Henry L. Fowkes, Mgr.,
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STEWART SALES COMPANY,
Rialto Building, San Francisco, Calif.

CLEVELAND OFFICE:
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Houston, Texas.
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1401 University Ave. S. E., Minneapolis, Minn.
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1417 N. Salina St., Syracuse, N. Y.

DOW
LOUISVILLE

In one precious minute 200 priceless lives can be saved by a Dow Spiral Slide Fire Escape -- a capacity equal to four ordinary stairways. Send NOW -- TODAY -- for details before it happens.

THE DOW CO.

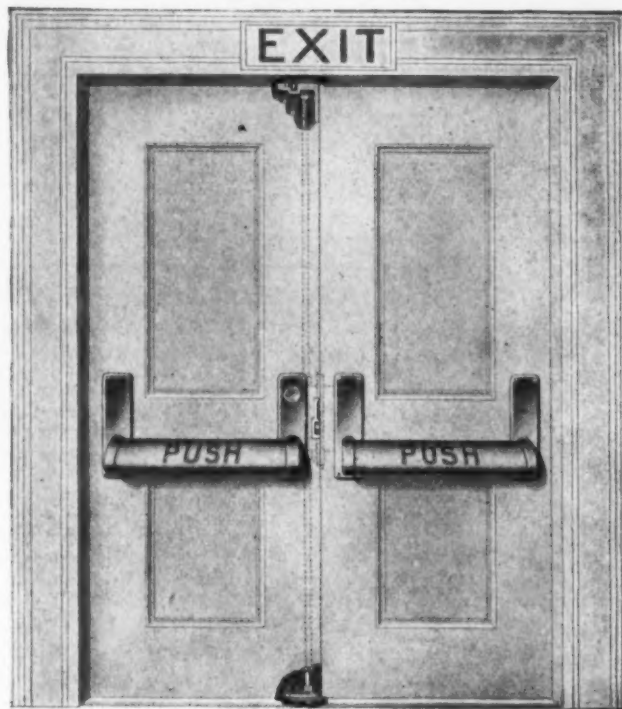
Incorporated

300 N. Buchanan St.

Louisville, Ky.

Quick exit assured Safety provided

Members of school boards and other officials on whom the responsibility rests should make full provision for protection to life in case of panic by the use of this safety device.



SARGENT

Reg. U. S. Pat. Off.

Fire Exit Door Bolts

as illustrated above, are attractive in appearance, strong in construction and quick in action. The construction is such that in operating the push bar the hands or arms cannot be caught between the bar and the door.

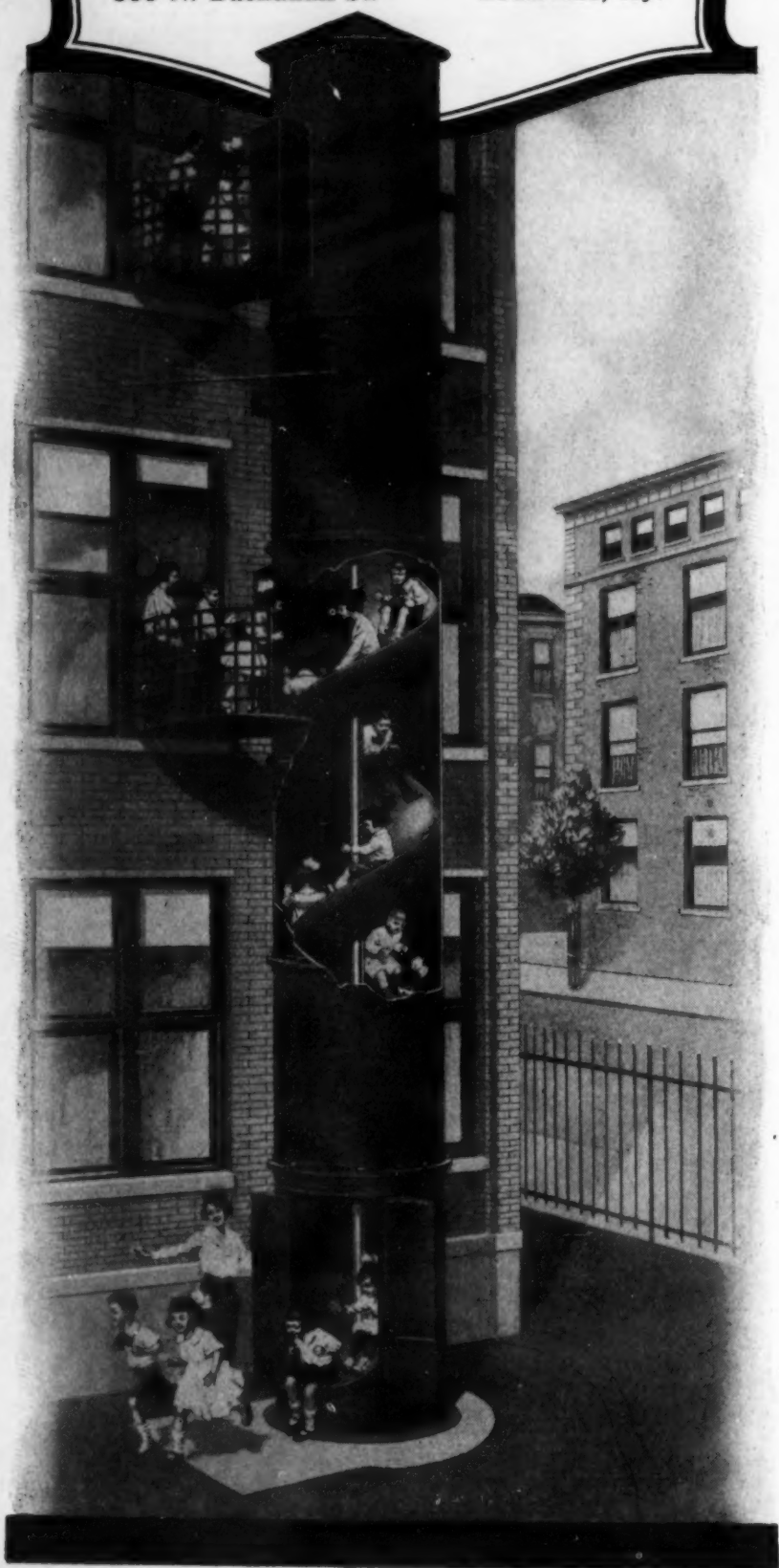
They have a wide push bar which projects only 2½ inches from the surface of the door, permitting the door to swing wide open so as not to obstruct passage through the doorway. Slight pressure on the bar at any point will release the bolts instantly. All edges and corners on the bars and brackets are carefully rounded, eliminating all possibility of wearing apparel becoming accidentally caught.

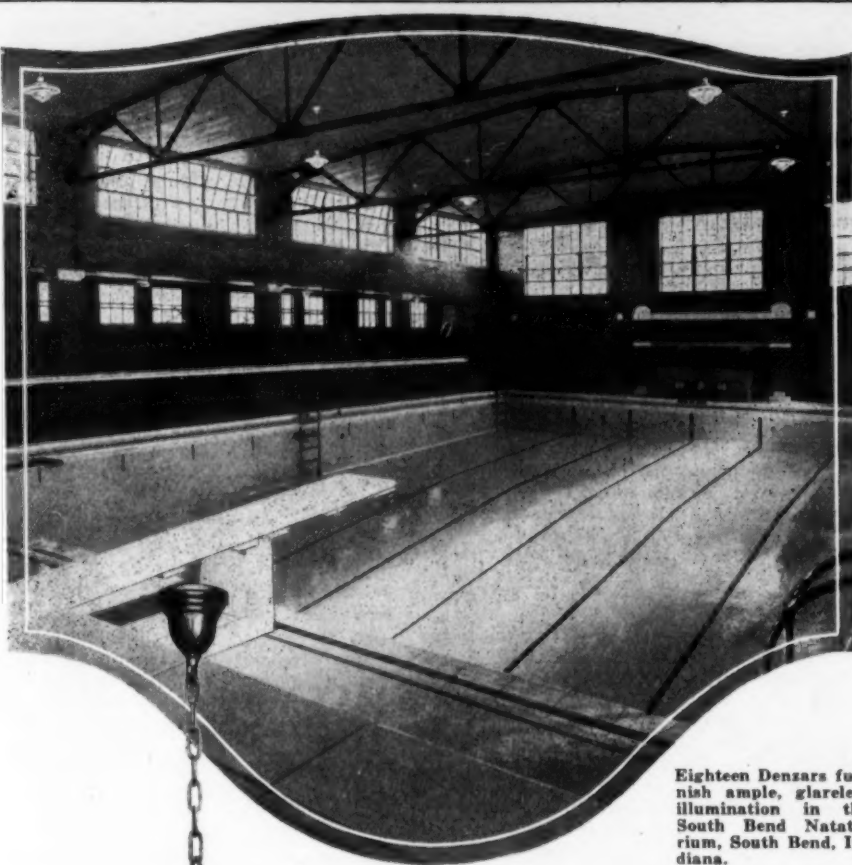
Sargent Fire Exit Door Bolts, Locks and Hardware are sold by representative dealers in all cities.

SARGENT & COMPANY, Manufacturers
New Haven, Conn.

New York

Chicago





Eighteen Denzars furnish ample, glareless illumination in the South Bend Natatorium, South Bend, Indiana.



DENZAR

The Unit of Day Brightness

Good Lighting is Equally Important for Play as well as for Study

Having provided ample, glareless illumination in the class rooms do not assume that your duty to further the conservation of the students' eyesight ceases. The eyes of growing children are easily injured by lights which produce blinding glare and harsh shadows. And what's still worse, the handicap of defective vision follows them into the business world.

To promote the mental and physical development of your students you must first of all provide ample natural day light and, when that fades, an abundance of soft, artificial light free from all glare and distracting shadows in both study rooms and those portions of the building devoted to vocational and physical training.

There are many so-called school lighting units on the market, some good and some bad but few, if any, equal Denzar in sustained efficiency, easy maintenance and quality of light. Jointly the Denzar reflector and Denzar bowl produce an abundance of soft, white light, free from all glare and harsh shadows. We have an interesting and highly instructive circular on the subject of school lighting which we will gladly send on request.

Beardslee Chandelier Mfg. Co.
219 So. Jefferson St. Chicago, Illinois.

(Concluded from Page 75)

—Denver, Colo. The new Skinner High School and auditorium, located on the north side of the city, has been opened for the first time with the opening of the new school year. The school is named after Elizabeth Hope Skinner, a former principal in the schools, and houses 1,200 children. The building which occupies an entire block of ground, is designed in English Collegiate Gothic and is constructed of golden brown fire brick, laid in gray mortar and trimmed with terra cotta in brown pulschrome finish. The building has a present enrollment of 1,194 pupils and accommodates the students of the seventh and eighth grades which have been parts of elementary schools, and most of the ninth grades.

—Denver, Colo. On October 10th the city voted on three bond issues totaling \$6,150,000 for the purpose of erecting a number of school buildings. Of this amount, \$2,400,000 is to be used to begin the construction of three senior high schools, \$1,750,000 will be used for building and equipping two junior high schools, and \$2,000,000 will be used for the construction of two elementary buildings. The bond issue has been presented in three parts, in order that the voters may approve all or a part of the issue as they see fit.

—Bristow, Okla., has made a growth of 50 per cent in the last four months. It now has a population of 15,000 people. A \$50,000 addition is being added to the present school plant. This will not take care of the increase. The board of education is making plans for additional buildings. It has been necessary every year for the past five years to add additional schoolrooms. This rapid increase in population has been largely due to the oil development around the city.

—The Brantford, Ontario, board of education has begun the erection of a fine new ten room school which will be called the "Graham Bell" school in honor of the late Dr. Alexander Graham Bell who was a resident of Brantford when he invented the Bell telephone.

—Under a statute of North Dakota, the city of Devils Lake held a special election and voted to increase the levy for school purposes 25 per cent higher than the maximum which the board of education could levy by law. Under this stat-

ute political subdivisions of the state are allowed to increase the tax levy by a majority vote at any election. The county auditor refused to levy the additional 25 per cent on the ground that the school district is not a political subdivision; and thus the matter was taken to the courts for the purpose of determining the validity of this law as applied to school districts. The Supreme Court of North Dakota rendered a decision that such increased levy is valid.

—Superintendent Harold Steel of Saginaw, W. S., Mich., announces the opening in his school district of two of the finest intermediate school buildings in the country. These new buildings as far as known are the only two in the state outside of Detroit that have been built specifically to care for children organized under a platoon plan program. These buildings will accommodate 2,300 pupils.

—St. Paul, Minn., is coping with an overcrowded condition in the schools by half sessions, double sessions, portable buildings and rented rooms. Some 2,000 pupils are on half sessions which means three hours instead of five hours a day.

—The school board at Troy, Pa., has received state legal advice to the effect that the building of new schools may be financed by holding companies. It is believed that the introduction of such a system would prove advantageous in cases where the school system is financially unable to meet immediate building needs.

—A most disagreeable situation in regard to an addition to a large school building has arisen at Newark, N. J. It seems that the construction is so faulty that the architect was dismissed before the building was completed. The added cost, in making the building what it ought to be, is said to run between \$50,000 and \$75,000.

—A recent election in the Sisterville independent school district, West Virginia, resulted in carrying a \$60,000 bond issue, by a majority of ten to one, for the purpose of constructing a new junior high school building. The architects are Holmboe and Pogue, Clarksburg, W. Va.; the contractors are A. S. Dyhre Construction Company, Charleston, W. Va.

—The school board of Rock Springs, Wyo., is completing three elementary school buildings,

one sixteen rooms and two four rooms, at a cost of \$150,000.

—At Birmingham, Ala., two new white elementary school buildings have just been completed, the Avondale school of 19 classrooms at a cost of \$155,878 and the Wylam school of 16 classrooms at a cost of \$140,880 (exclusive of land). A four room addition has been made to the Central Park elementary school, both for white children, at a cost of \$42,296.78 and \$47,520.00 respectively. The new Hudson negro elementary school of 20 classrooms has just been completed at North Birmingham at a cost of \$59,673.53 (exclusive of land).

—Plans are nearing completion for a new addition to the North Birmingham, Ala., white elementary school and for the new Norwood white elementary school. These buildings are estimated to cost approximately \$100,000 each and it is hoped that construction will begin within a few months.

—The first unit of the new Woodlawn high school, Birmingham, Ala., with a capacity of 700 pupils was opened in February of this year, and is now crowded beyond its capacity. An addition of six classrooms has therefore been made in one temporary building. The new John Herbert Phillips high school should be ready for occupancy in February, 1923. The first unit of this building, now under construction, together with the Woodlawn high school unit have cost to date \$859,624.27 including land, buildings and equipment. At the Ensley high school two temporary buildings have been added, one of two rooms for boys' and girls' gymnasiums and one of six rooms for classrooms.

—Holden, Mass., with a population of 3,000 has a total school enrollment of 632, employing 26 teachers. The town has appointed a school building committee with the superintendent and school committee as members.

—Superintendent J. C. Lindsey of Mitchell, S. D., reports that two new buildings of the cottage type are occupied. Every room is equipped with sky and window lighting. The buildings have ample office room for principal and supervisors. There is also a special room equipped with auditorium, tub and shower baths, etc. The buildings cost \$100,000 each.

A Complete Census, Its Function and Value

C. P. Birkelo, Nome, N. D.

The demand in recent years for a more "live" and valuable school census came as a result of two developments in connection with school administration and supervision. One of these was the great difficulty on the part of school authorities of enforcing the compulsory attendance and child labor laws. The second development was the universal demand in recent years for greater efficiency in all fields of activity and the accompanying demand for better and more definite results. Fortunately this efficiency wave reflected itself also in our educational activities. It brought on a much needed awakening in the business of education.

The only purpose the school census had served up to about ten years ago was in the apportioning of state school tuition funds. Outside of this it was of very little value to the school population. Very few people if any saw in the census data anything of further value to school administration. It was so to speak, a closed book within whose covers was found a great amount of valuable material.

As a result of the developed usefulness of census facts we have modified and reorganized our method of collecting and keeping our school census. What was formerly the primary aim in the taking of a census has now become more or less of a secondary consideration. The apportioning of state school funds as the aim has been relegated to second place. It was found that the census, incomplete as it was, contained a vast amount of usable material that was of no value to the school patrons. It was there, but it was not in a form that it could be used. Information in regard to the children of compulsory school age was to be found in the census, and yet superintendents, teachers and attendance officers did not know with any degree of certainty how many children should be in school. It was also found that the census records could contain a great deal more of material, which could be collected at an expenditure of very little more money than formerly, and it was material which was needed to make the schools serve more fully the children of all the people.

Let us see what an ideal census record should contain to meet the demands placed upon it; how and when it should be taken; and, finally, the benefits which can be derived from it.

The enumerating sheet for recording the school census should contain the following data: The full name of the child; its date of birth with year, month, and day, as determined by such authoritative records as birth certificate, baptismal certificate, passport, etc.; its sex; its birthplace, together with the birthplace of the parents or guardian; date of arrival in the country if immigrant; employment and social status of parent; citizenship; residence; the school the child has attended and is attending; all facts of employment of the child, if employed and not in school. The physical condition (deaf, dumb, blind, crippled, etc.), mental condition, and vaccination certificate should also be recorded. These sheets should have on record all the children within the compulsory school age and those above this age for whom the district receives tuition funds. This, in a sense, will be a family record.

To make the census as complete as possible it should be taken by those who are interested in the work of the schools and have had sufficient training to be able to collect the data properly. Those who are perhaps best fitted for this work are school principals, teachers, visiting teachers, and social workers. The replies to a questionnaire sent out to twenty cities in the Central States of a population of from 900,000 to 7,000 showed that out of the seventeen making a reply two had employed high school students for this work. One reported that the employment of high school students for this work was not satisfactory. One city of 10,000 population employed a school nurse for twelve months, and she collected the census during the summer months. In three cities the board of education appointed special enumerators for the work.

In the large cities the census work usually is and should be under the direction of the attendance department. The chief officer of this department should have specific training for this kind of work. Training for this position is just as important as is the training necessary for a

superintendent's or principal's position. A person who has had a wide training in urban social and charity work is usually well fitted for such a position.

In small cities where no attendance department as such is maintained and where no attendance officer is employed, at least not on full time, the census taking work should be under the direction of the secretary of the board of education. The replies to the questionnaire, referred to above, indicated that in the small cities this work was taken care of by the secretary of the board. By the help of special assistants he can gather the data and organize them for ready reference. The best and most logical time for collecting the census data is the summer months, usually June and July. This will allow time for checking up the records for the opening of the schools in September.

In order that the records may become permanent and easily available for reference, the data on the enumeration sheets should be transferred to individual record cards. These cards should be made out in duplicate. This will lessen the danger of their being lost through fire and will permit easy reference by the attendance officer, principals and teachers. One file should be kept in the office of the superintendent of the schools and one in the attendance office. When children transfer from one school to another the individual record cards can very easily be moved from file to file. This is one of the great advantages of the card system.

In small cities a complete and accurate school census need not be taken every year. A continuing record of each child makes an annual enumeration unnecessary. The data on the cards in the files may be kept fresh and accurate by means of continuous correction. In small communities all the records may be gone through annually for correction. This will consume less time than to record the data for every child every year. In larger communities the census data may be corrected by taking one district or ward at the time and not necessarily the entire city in one year or every year. Of the seventeen cities making the reply to the questionnaire three did not keep a continuous school census. The population of the cities referred to is circa. 450,000, 100,000, and 13,000. All cities indicated that the census was taken annually.

The continuing record should be kept through the period that any census information is needed regarding the child. From year to year, as the child progresses through the school system, its attendance, absences, deportment, grade, demotion or promotion, are indicated on the record card, which has space for this information. Every new child entering school at the opening of the school or at any other time should present a registration card. Transfer cards should be made out and sent to the principal concerned when children move from one ward or district to another. In order that the school should know the whereabouts of all the children or families at all times, the school authorities should have the full cooperation of principals and teachers in private and parochial schools, moving companies, social workers, parents, teachers, and clubs. An attendance officer should have authority to enforce the attendance law at the private and parochial schools. Only then can he know that all the children are in

OUR SCHOOL BOARD.

There is no body of men performing a public function from whom quite so much fairness, squareness, and bigness is expected as from the American School Board. Nowhere can you find a group of men giving the amount and quality of service for as high a purpose as they. No one but its members know the amount of time given—without compensation—for the betterment of the community through their planning for its boys and girls. It can be said that the future of our democracy lies in the hands of boards of education serving throughout the country. If they plan wisely and well, the schools will be good, and if the schools are good, the citizenry of tomorrow will be thoughtful, broad minded, and cooperative—impregnable bulwarks against the canker of anarchy and sedition.—Times-Journal, Savanna, Ill.

school who should be in school. In some cities moving concerns are compelled by local ordinance or state law to report families moving in and out of the various wards. One city of over 800,000 population making a reply to the questionnaire sent out reported that a local ordinance compelled the police department to report the removal of families, but this was of very little assistance. One city of 10,000 population reported having a local ordinance to this effect, but that it had been ruled out by the supreme court of the state. All other cities reporting had no local ordinance making this requirement, nor were the companies asked to cooperate in the work.

A census record collected and kept up as has been indicated and, of course, utilized will be of great value to the schools. It will be of great value to the superintendent of schools, the members of the board of education, the attendance officer, the teacher, school patrons and pupils.

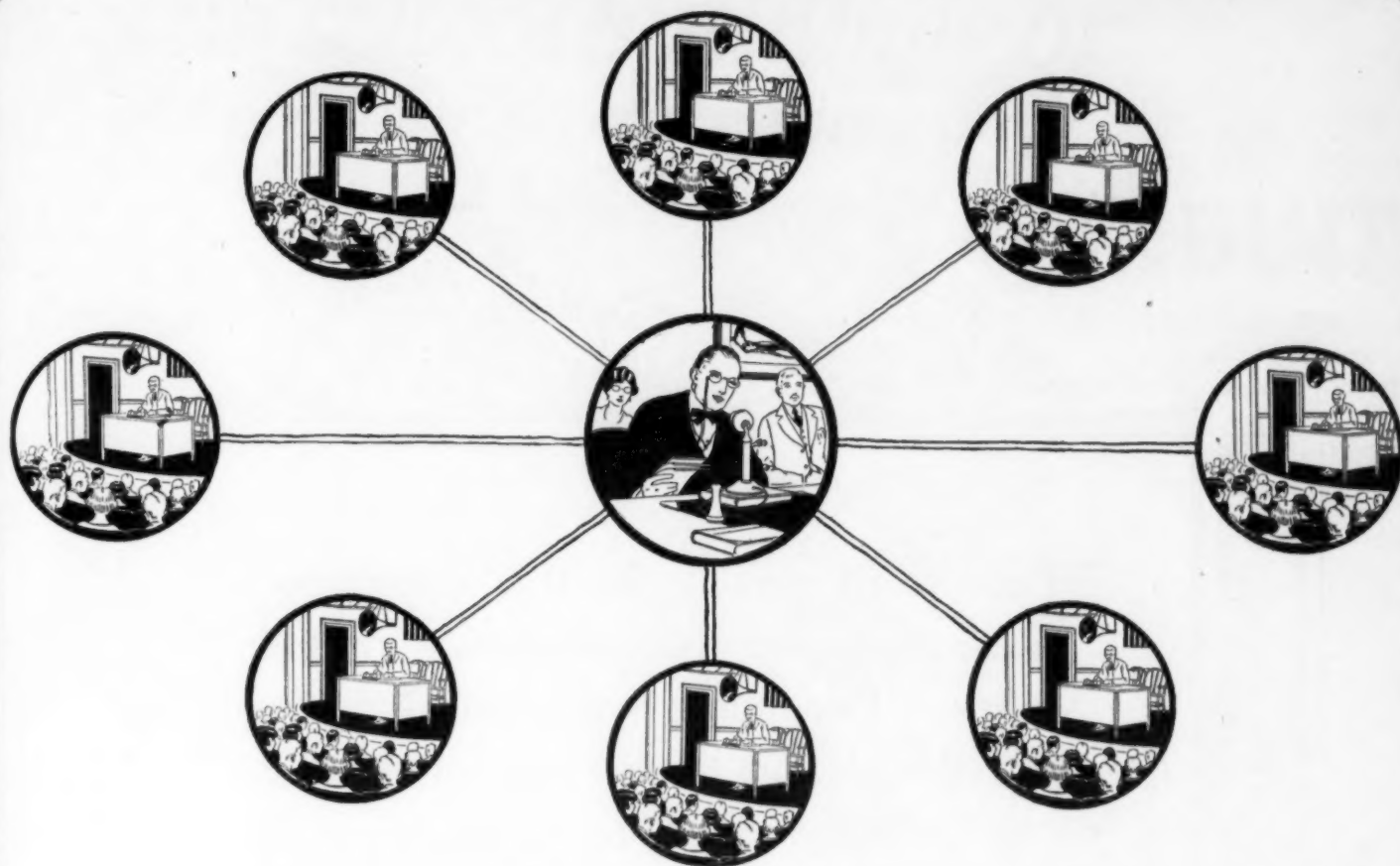
With such records the superintendent of the schools will be able to present reliable data regarding the work and the efficiency of the schools to the members of the board of education and to the public. He may, for instance, present to the board figures showing the necessity of additional school buildings, equipments, or teachers, or the necessity of a reorganization of the course of study and the readjustment of the system of instruction. He may be able to show the board the merits or demerits of the various parts of the school system. He may show the need of making special provisions for the crippled, deaf, dumb, etc. Through his annual report he will be able to acquaint the public with the work of the various departments of the schools, the effect of poor attendance on promotion and retardation, and the causes of non-attendance. He will have valuable data to be presented in organized publicity work for better schools and greater financial support,—a thing which is absolutely essential to the progress of public education today. He will be able to "educate the public" and to arouse a wholesome sentiment for a progressive school policy.

Such a census will be of value to the taxpayers in many instances. The accurate census figures may be the cause of a great amount of additional state tuition funds being brought into the coffers of the school treasury. The Survey Committee which examined the Cleveland schools found that the city school system, because of loose school census methods, had failed to collect during a period of six years \$150,000, which was due from the state treasury. The committee surveying the schools of St. Paul, Minn., in 1917 pointed out that a large amount of money was lost to the city school system on account of similar laxity.

The entire population of the community will be served by accurate census records. These records will make it possible to enforce the compulsory school attendance and child labor laws. It will safeguard to every child the right to at least an elementary education. The children will be saved from industrial exploitation. The school will be able to serve them better during the period they are in attendance; retardation on account of children entering school late will be reduced and withdrawals at an early age will be diminished. The various studies which have been made show that there is a close correlation between retardation and dropping from school on the one hand and irregular attendance on the other. There will be a minimum of class disorganization on account of greater regularity of attendance. The children will receive the benefit of a better course of study, better instruction, and a better school and class organization, if it is shown by the census data that the existing course of study and the instruction do not meet the needs of the children, especially those who are brought into school from the street.

As can be expected, an efficient census department will cost more than a poorly organized and inefficient organization will. It is worth a great deal more and why should it not cost more? The city will be liberally repaid for the money spent in this way. The city of St. Louis, Mo., had an accurate and complete census enumeration in 1914 made by the principals and teachers and it cost \$6,000, but it resulted in a forwarding of \$56,000 of state apportioning funds to the school treasury.

—C. W. Richard has been reelected for his twelfth term as superintendent of the Ardmore, Okla., schools. During his term of service a research department has been created which has introduced the intelligence, attainment and educational quotients.



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LEGAL STATUS OF SUPERINTENDENT.

J. Cayce Morrison, member of the New York State Department of Education, in a public address recently said:

"Approximately one-third of the total municipal expenditures in American cities and villages goes to the public schools. There are indications that the American public is not satisfied with the legal machinery devised for the administration of city schools. An examination of the law and of the current public opinion of our day shows that there are two distinct theories of the legal status of the school superintendent. One theory holds the superintendent legally as an employee of the board of education. Another as a professional man who acts independently.

"Study of recent legislation shows a growing recognition among legislators of the legal responsibility of school superintendents. Without question the greatest forward step in legislation for the local administration of schools lies in making the superintendent legally responsible for taking the first initial step in all administrative acts. It is a safe prediction that the school superintendent will more and more be recognized as actually the executive head of the local school system.

"He will be held responsible for taking the initiative in all administrative functions. The legal relationships of the board and superintendent will depend on the legislative solution of many relationships. We need new laws; laws that will make it possible for superintendents and other school men to give best service.

"In America, the state is responsible for the education of its people. The laws of the state determine in a large measure the responsibility for school administration in local communities. Elimination of dual authority and a more careful definition of the powers and duties of all

officials concerned with the local schools will do much to eliminate friction that now exists and to increase efficiency of the public school service.

"We face a day when the schools can in no sense be a source of patronage to local politics and when consolidation and larger supervisory units are taking the place of the one-room school. The public is no longer satisfied with a school superintendent who is merely the chief employee of a board of education. It wants a man or woman fitted by educational experience to take active part in all of the ever-increasing activities and responsibilities of local school administration.

"Superintendents and boards of education with whom they are associated have it in their power to formulate such a program as will insure the greatest efficiency in school administration. When such a program is formulated, it should be given the prestige and protection of the law."

OPPOSING FORMAL EXAMINATIONS.

Superintendent H. O. Dietrich of Norristown, Pa., reported to the school board that:

"The first outstanding feature about your system is that most of the teaching is mechanical. By this I mean that the teacher teaches what has been outlined for her. She teaches according to a set form. She follows the course of study very closely. This in itself is a weak feature. Teaching of this type is bound to be mechanical and iron-bound. The teacher is thinking of, and really teaching textbooks and a course of study, instead of children. This leaves no room for initiative and originality on the part of the teacher. As a result of this close uniformity the teacher tries to cover a certain definite line of work—in short—everybody is supposed to cover the work as laid down in the same time, regardless of capacity. This of course is an impossibility. There is no room for flexibility.

"This leads to the second outstanding feature, viz: A high non-promotion rate. The number of pupils who were not promoted at the close of this last school year is appalling. Certainly in a school system where semi-annual promotions are the vogue one would expect a very low non-promotion rate. The chief advantage of semi-annual promotions is to minimize retardation. This the semi-annual promotions here evidently

fail to do. Evidence of this lies in the fact that the non-promotion rate at the close of your school year ranges from 3 to 7 per cent. Non-promotion rates of 20, 22, 24, 30 and 40 per cent are common. In the first grade it varies from 4 to 29 per cent. Classification of pupils in half-year grades is not remedying the evil of classifying together pupils of widely different attainments. If these non-promotion rates are fair, then surely your pupils must be re-classified under a system far more flexible than semi-annual promotions.

"I find that the formal examination is still the vogue here. It may be that your high non-promotion rate is due to pupils expected to but fail to pass examinations. The formal examination has fallen into disrepute as a means of determining whether pupils are to be promoted or not. It has been discouraged by progressive schools all over the country. It leads to cramming, to undue worry and nervousness, and to working with the sole end in view of passing."

These observations were followed by suggestions:

"These are but a few of the outstanding features of your school system, as observed in the few months of supervision, which need to be corrected. The school has two important functions to perform, viz: To hold children in school, and second, to see to it that the children get through on time. When the percentage failing to get through on time varies from 3 to 74 per cent, certainly we need not ask what shall be done.

"In accordance with the above statements I shall make the following suggestions:

I. That the formal examinations be discontinued.

Reasons: 1. Progressive systems all over the country are doing so. 2. It leads to cramming, to undue worry, and to working with the sole end in view of passing.

II. That semi-annual promotions as promotion goals be discontinued.

Reasons: 1. Less than half of the school systems of the country are following the semi-annual grading systems. 2. Your own system proves that the chances of failure are almost twice as great in the semi-annual system over



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against the old type annual plan if arranged with flexibility. 3. Division of classes into groups so as to care for the bright, the average and the slow, are not part of the present organization.

III. That the course of study be reconstructed gradually so as to fit the newer demands of school organization and provide for the various types of capacity."

The School Board Acts.

The school board then adopted the following:

1. Instead of a formal examination administered at the end of each term, to which everybody is supposed to conform, regardless of nationality or capacity, have regular tests or reviews at the end of every two month period, these tests to occupy regular recitation periods only. This will permit the teacher to detect the children who failed to grasp the facts presented. These children instead of being permitted to continue until the end of the term and then failing to pass a formal examination, can be given extra help, thus aiding them to master the weak points. Naturally some children will need more time than others in grasping the same facts. These should be given a fair chance. Others may need only one-half the time. In fairness to both types I would suggest that the last half hour of the school day be used for coaching or aiding of the weaker children—while the children who need no aid be excused. In this way the slow child will be given a chance to work up and hold his own—while the other child will be rewarded for his efforts. This free period will serve as a spur for all the children, for they realize as soon as they overcome their weakness they will share in the full half hour. This, if made a daily procedure, will insure a square deal for the child and an economic measure for the district.

II. Instead of the semi-annual promotion plan have the class-group plan. This means, of course, that all children in grade one would be straight first graders for a year—with this difference—that there would be no mid-year promotion goal. In its place would be a division of groups determined by intelligence tests or by classroom trial. In this way classes could be arranged so that there would be only a few weeks interval between them. Whenever a pupil could not maintain himself in his group, he could be placed in the one next lower, and when-

ever a pupil showed that he could work more rapidly than his group, he could be placed in the next higher. Thus there would be a continual change of classes. This would bring about a continual forward movement—making the system elastic and mobile.

III. Instead of holding the child of the foreign born to the same course of study as we expect our own children to cover, emphasize the English language only—adding such supplementary work as they can readily grasp. These children are with us but a short time—practically all leaving school at the age of fourteen, and it is our business to so shape our course as to give them the most possible with the least loss to them.

RIGHT OR WRONG—WHICH?

Superintendent C. H. Skidmore of the Brigham, Utah, schools, prepared the following test as a stimulus to his teachers:—

Follow instructions carefully. Each one work entirely by himself. Write the plus sign before each statement which is right and minus after each statement which is wrong. In ten minutes, the teacher will read the correct answers. As he reads, make two columns in the left margin, the first to contain R opposite each statement which is answered correctly, and the second to contain W opposite each one that is answered wrong. Subtract the number of W's from the number of R's, and multiply by four. Place the result in the upper right corner. Finally, pass papers along the row to the right. The last one on each row is to bring all papers of that row to the teacher.

Enough said. Proceed. (Assume the statements are not debatable.)

1. Any one may become a good teacher.
2. Any teacher may become a better teacher through right study and experience.
3. Not only extension work but also summer school work is very helpful to a teacher.
4. All teachers who hold Life Certificates are progressive teachers.
5. All teachers should attend institutes with the spirit of helping and of being helped.
6. The stronger teachers always get the least out of institutes.
7. All teachers have a sense of humor.
8. Teachers have a right to read the Bible in the Public schools of Utah.

9. Teachers, whose pupils get the most A grades, are generally the best teachers.

10. Each faculty should have a clearly defined marking system.

11. The life of a school depends primarily upon the pupils.

12. A well organized and efficiently conducted school will permit no pupil to fail, continuously.

13. "In learning always avoid intense effort,—work deliberately and slowly."

14. Speed is always attained at the expense of accuracy.

15. Learning and education mean the same thing.

16. A favorable attitude toward work is necessary for the highest efficiency.

17. Education must consider the future environment of the child.

18. All instruction in grammar grades and high school involves continuous use of concrete examples.

19. Materials of instruction in the lower grades should appeal strongly to the imagination.

20. What is frequently called a poor memory is really lack of observation.

21. The one who forgets the most things necessarily has the poorest memory.

22. If any act is frequently repeated it becomes an instinct.

23. Learning is transmitted through physical inheritance.

24. Learning without a knowledge of results is wasteful.

25. Educational tests and measurements are waning in popularity in the best schools of our country.

—S. Monroe Graves is serving his ninth year as superintendent of the Wellesley, Mass., public schools. Dr. Graves, who for six years was lecturer and instructor in the Department of Education at Wellesley College, is now giving full time to the administration of Wellesley's rapidly growing school system. The schools are now organized on the six-three-three plan and the very successful junior and senior high schools are just commencing their fourth year under the new plan.

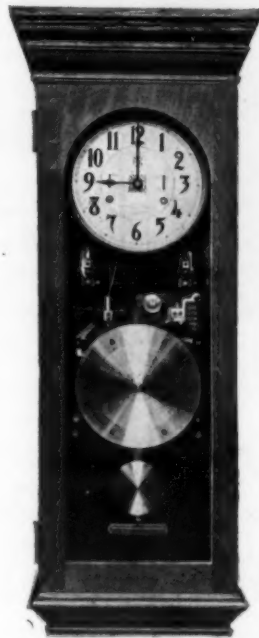
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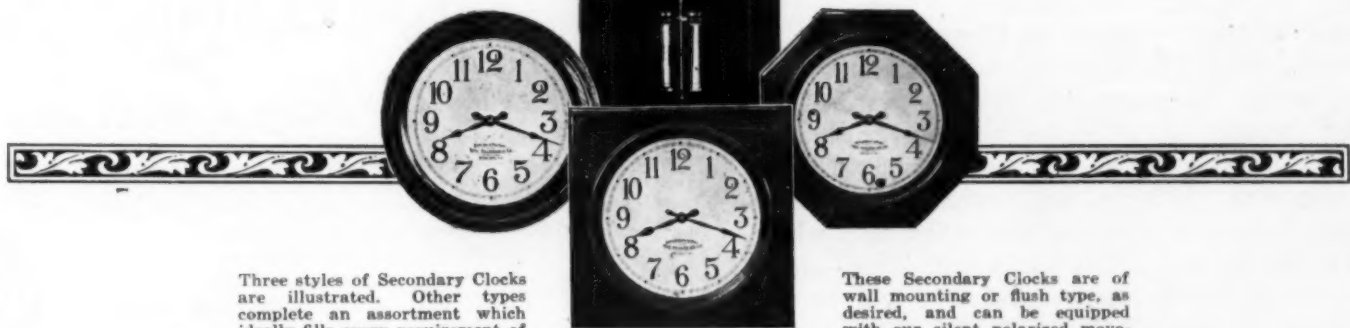
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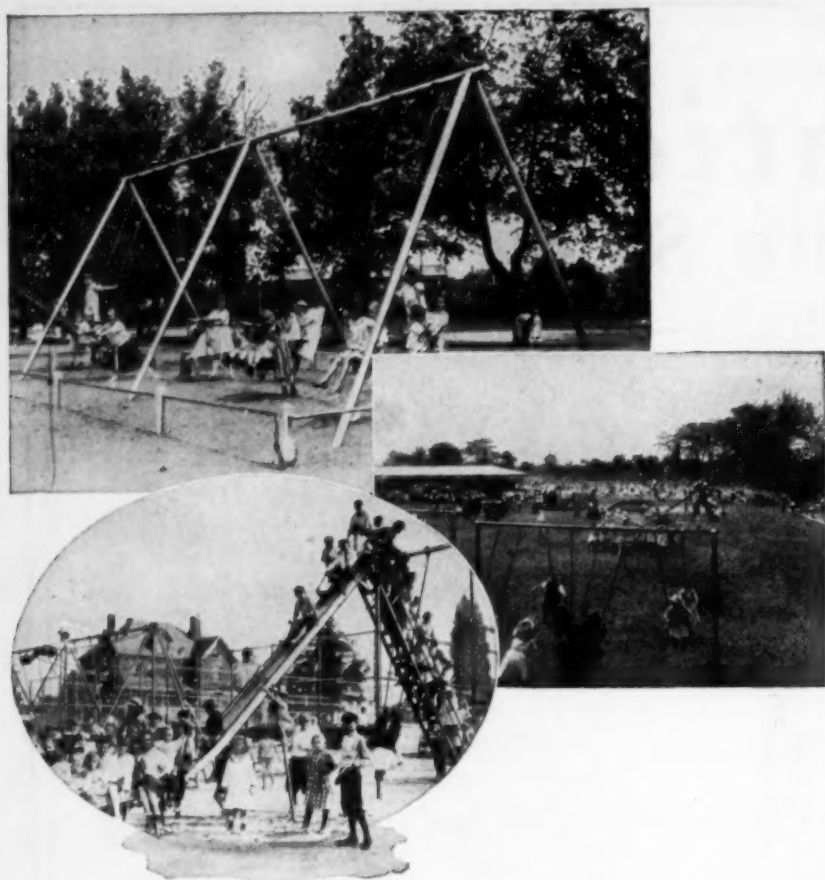
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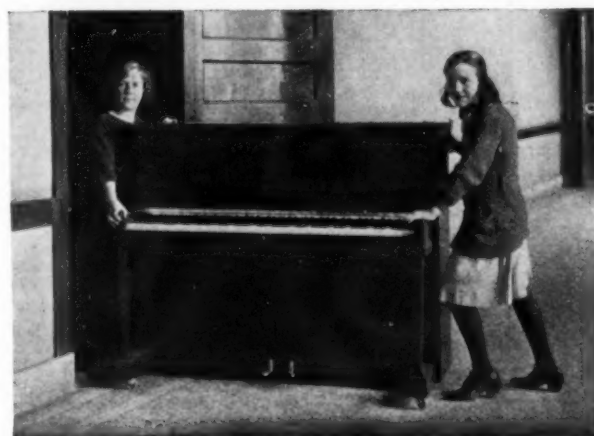
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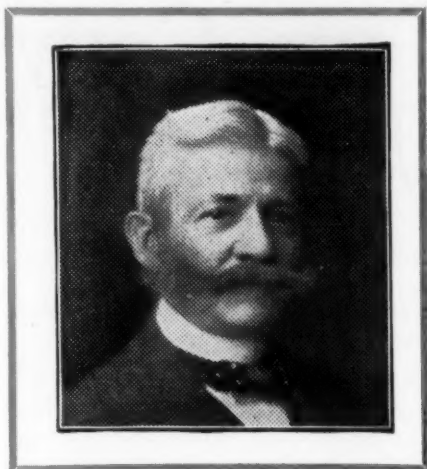
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PERSONAL NEWS OF SUPERINTENDENTS.

—The school board at Paola, Kansas, has elected as superintendent of schools, A. M. McCullough of Wilson, Kans.

—O. H. Plenzke has been elected superintendent of the Menasha, Wis., schools for a term of three years with a salary for the first year of \$4,100.

—J. H. Bowen has been reelected superintendent of the Mounds, Ill., schools.

—Charles C. Sherrod, Supt. of the Morristown, Tenn., schools for the past four years, has resigned to accept a fellowship in George Peabody College for Teachers, this coming year. Supt. Sherrod will be succeeded by S. L. Woodward of Plant City, Florida.

—Jay McComis has been elected superintendent of the Venice, Ill., schools at a salary of \$3,000.

—H. E. Knarr is the new superintendent of the grade schools at Des Plaines, Ill. He comes from Annawan, Ill., where he was the superintendent of the consolidated township schools.

—Supt. I. E. Stutsman of the Fort Morgan, Colo., public schools is just entering upon a term of service under contract for three years at \$4500 a year. Mr. Stutsman was with the Fort Morgan schools as high school principal for four years and then resigned to go to Brush, Colo., as superintendent. He served one year as superintendent at Brush and returned last year as superintendent of the Fort Morgan schools.

—The Winnetka, Ill., school board has granted Supt. C. W. Washburne a four months' leave of absence on full pay to make a special investigation of European experimental schools. His itinerary will include England, France, Germany, Switzerland, Belgium, Holland, Denmark, Sweden, and possibly Russia, Czecho-Slovakia and Turkey. He goes equipped with credentials from the United States Bureau of Education and the State educational department of Illinois.

Ed. R. Bentley, who was given a leave of absence to make the race for state superintendent of schools, has resumed the superintendency of the McAllen, Texas, schools at \$4,200, which is two hundred dollars more than he would have received as superintendent of the entire state.

He was defeated by only about 15,000 votes, having received something more than a quarter million votes.

W. D. Johnston is serving his sixth year as superintendent of the Weirton, W. Va., schools. His salary is \$3,000 a year. Besides, the board provides him with a secretary and an automobile.

Supt. J. B. Hendricks of Mt. Vernon, Ill., resigned the superintendency to accept a similar position at Taylorville, Ill.

William Miner resigned the county superintendency of Jefferson County, Illinois, to accept the city superintendency of Mt. Vernon, Ill.

—R. D. Owen has resigned his position as superintendent of Mayville, Wis., and will spend the year studying educational administration at Teachers College, Columbia University, New York. On August 1st he received the degree of doctor of philosophy from the University of Wisconsin in English and comparative literature.

—Former Supt. O. J. Bainum, after 25 years of service, retired from the Paxton, Ill., city system to be a candidate for county superintendent at the November election. Principal Ottis Hookinson of the Wellington township high school succeeds him.

—Paul R. Radcliffe has been elected superintendent of the Nutley, N. J., schools for a term of three years dating from July 1, 1922.

—Wilmington, Del., is organizing a department of research. Ernest C. Witham, formerly superintendent of schools of Putnam, Conn., was secured to head this department at a salary of \$4,000 per year.

—H. A. C. Walker of Savannah, Ga., was elected supervising principal of the E. C. Glass high school at Lynchburg, Va. Mr. S. G. Anspach, who retired on account of bad health, was retained as assistant principal without reduction in salary. Mr. Walker's salary is \$3,800.

—The Piedmont, W. Va., school district has a new superintendent in the person of Charles T. Neff, Jr. F. A. Yoke, the former superintendent, is in the insurance business at Morgantown, W. Va.

—E. D. Denison is the new superintendent at Lake Geneva, Wis. His predecessor, W. R. Rood, has gone to live at Riverside, Calif.

—W. H. Morton succeeds A. J. Stoddard as superintendent of the city schools of Beatrice, Nebr. Mr. Morton was superintendent at Fairbury, Nebr., for the past seven years. Mr. Stoddard has accepted the superintendency of schools at Bronxville, N. Y.

—Charles Henry has entered upon his fourth year as superintendent of the Pullman, Wash., schools at a salary of \$3,600.

—F. T. Appleby has entered upon his sixth year as superintendent of the Florence, Ala., schools. During his term of service the enrollment has grown from 910 to 2493, and the number of teachers from 17 to 59, and the school budget from \$14,000 to \$63,000. In part the growth is due to the Muscle Shoals dam built at Florence by the government.

—O. P. Norman, who has been superintendent of the Kaufman, Texas, schools for the past eighteen years, has been reelected at a salary of \$3,000 a year.

—Dr. W. M. Davidson, superintendent of the Pittsburgh, Pa., schools, delivered the dedicatory address in opening the new Theodore Roosevelt high school at Kent, Ohio.

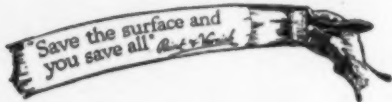
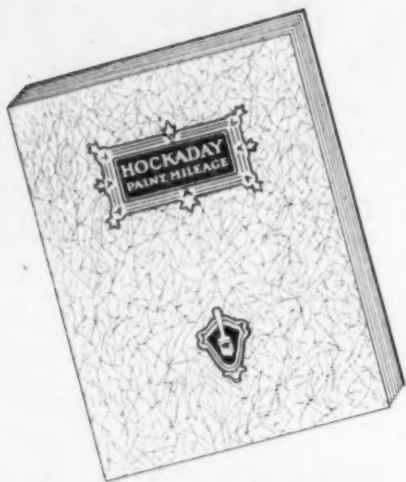
—Two classes for deaf children were established in Erie, Pa., under the direction of Mrs. Vida A. Kent and Miss Leola Matthews. The plan of a composite newspaper including news items of all high schools has been approved. This paper will be printed in the school shops and a circulation of at least 3,500 is predicted.

—John C. Diehl, for over twenty-five years a high school principal in Erie, Pa., has been elected superintendent, and George O'Moore, who has been in school work in Erie for the past twelve years, was made his assistant.

—William J. Bickett was reelected Superintendent of the Trenton, N. J., schools for an indefinite term at a salary of \$8,000.

—Mr. Clinton E. Farnham, headmaster of the academic high school in New Britain, Connecticut, has been appointed principal of the Winchester, Massachusetts high school at a salary of \$4000. He is a graduate of Yale College, 1911 and has an A. M. degree in education from Columbia University.

Where Shall We Send Your Copy of "Paint Mileage"



THE new Hockaday book — "Paint Mileage" — is now ready for distribution. You who are interested in painting facts should send for it. You will find "Paint Mileage" brim-full of vital painting information, prepared by a paint expert, and so interestingly presented that you will concede it to be an authority on interior painting and a reference book

to which you will refer many, many times.

In requesting a copy of "Paint Mileage" please be so good as to state your official position as a school executive. In "Paint Mileage" we have prepared a very complete and authoritative analysis of interior painting problems. Hence we are anxious that it shall reach the important executives most interested in interior painting facts.

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HOCKADAY

THE WASHABLE FINISH FOR ALL INTERIORS

W. E. Sheffer has been appointed superintendent of the Concordia, Kansas, schools for a period of two years.

L. M. Effs, who for the past four years has been superintendent of the Mount Airy, N. C., schools, has been elected superintendent of the Tarboro, N. C., schools to succeed Supt. R. F. Moseley who resigned to take up the practice of law.

C. A. Kittrell, principal of the Devils Lake, North Dakota high school for the past seven years, succeeds superintendent Latham, superintendent of the schools of Lemars, Ia. Mr. Edwin Milton Belles of the high school of Springfield, Ill., succeeds Mr. Kittrell as principal at Devils Lake.

The school board of Caliento, Manitoba, Canada has appointed C. W. Webb, M. A., as superintendent to succeed Alfred White, resigned, and a complete new staff of teachers.

Ralph C. Jenkins for the past two years Connecticut representative of the American Book Co., has resigned that position to become superintendent of schools in Putnam, Conn. Mr. Jenkins succeeds Mr. Ernest C. Witham, lately elected assistant superintendent of schools at Wilmington, Del.

E. H. Poteet of Haskell, Texas, has been re-elected principal of the high school at a salary of \$2,500 per year.

S. L. Hardin has entered upon his sixth year as superintendent of the Mission, Texas, public schools at a salary of \$3,250 per year. During this period the schools have made remarkable progress. The board of education and the Rotary Club paid Mr. Hardin's expenses to the International Rotary Convention at Los Angeles and for the summer session of the University of California at Berkeley.

Mr. Engleman Appointed.

Mr. J. O. Engleman has assumed the office of field secretary for the National Education Association and on November 1st assumed his new duties. He resigned on October 1st as superintendent of the Joliet schools.

Mr. Engleman is a hoosier, 51 years of age and has been engaged in educational work since graduating from the Indiana State Normal School. He has held positions as principal of

high schools in several Indiana cities and has been superintendent at Loogootee for some years. He was connected with the Indiana State Normal School and with the La Crosse Normal School of Wisconsin. From 1913 to 1918 he was superintendent at Decatur, Ill., and since 1918 has been head of the Joliet schools. Mr. H. Magill whom Mr. Engleman succeeds was a general man.

Superintendent F. R. Yoke of Weston, W. Va., resigned his position to accept the alumni secretaryship of West Virginia University at Morgantown, W. Va. The board of education elected as superintendent A. D. Horton of Dover, Ohio. For twelve years Mr. Horton was superintendent of schools at Wellsville, Ohio. For a year he was secretary of the Chamber of Commerce at Dover previous to resuming school work at Weston.

Miss Edna Arnold for many years principal of the Weston, W. Va., high school has been made dean of women at the Shippensburg State Normal School (Pa.) H. D. Rohr of Grafton, W. Va., was elected to take her place.

NEWS OF SCHOOL OFFICIALS.

Seth L. Tucker has been elected president of the Hornell, N. Y., school board.

R. S. Wheeler has been elected president of the Nyack, N. Y., school board.

W. S. Roberts and J. Monroe Hunt have been elected new members of the board of education at Cordele, Ga., succeeding L. A. Parker and J. Slade.

Judge Lars Backe and Dr. O. F. Mellby have retired from the board at Thief River Falls, Minnesota, after serving twenty-three and eleven years respectively. Mr. T. L. Melgaard and Mr. Math Barzen have been elected to fill the vacancies.

Mrs. Augusta D. Millspaugh succeeds Mrs. Laura L. Larmore as a member of the Anderson, Indiana school board.

The schoolboard at Rock Springs, Wyoming has elected Paul Jones of Louisville, Ky., as business manager of its school system.

S. M. Duffie is rounding out his sixth year as president of the Mission, Texas board of education. Mr. Duffie is a successful business man and has rendered a splendid account of his stewardship as president of the board.

Dr. T. H. Culhane was elected a member of the Rockford, Ill., school board.

Mr. C. W. F. McCready has been appointed as principal of the high school at Munhall, Pa., succeeding Mr. Carson who has resigned to accept another position.

Miss Charl Williams, late president of the National Education Association, has resigned her position as superintendent of her county in Tennessee and accepted a field secretaryship in the organization. It is stated that her salary will be \$7,500.

Mr. John L. Thompson, for twelve years president of the school board of Gas City, Ind., died on September 15. Mr. Thompson was instrumental in raising the standards of the city schools, was a supporter of all progressive measures in education, and a community leader of pronounced ability. Mr. Thompson is succeeded on the board by Mr. Olin Gordon, a prominent public-spirited business man.

Mr. Robert E. Fulton has been elected clerk of School District No. 1, which embraces the city of Portland, Ore. He succeeds Mr. R. H. Thomas, who was for nine years School Clerk and Business Manager of the District.

Mr. Thomas was before his election as Clerk, a principal in one of the Portland schools and had had experience as a practicing attorney. He was for some years a prominent member of the National Association of School Business Officials and in May, 1922, was elected president of that organization. He has entered business in the city of Portland.

Supt. E. E. Bass of Greenville, Miss., has entered upon his thirty-ninth year as head of the schools of that city.

Supt. Wm. C. Allen, who has been at Canton, N. C., for several years, has tendered his resignation to accept the position of training supervisor at the United States Veterans' Bureau Vocational School at Waynesville, N. C. Mr. Allen has been succeeded at Canton by J. T. Hatcher of Calypso.

Among some new members at Colorado State Teachers' College, at Greeley, Colo., this year is Dr. George W. Frasier, who has been appointed dean of the Graduate School to succeed Dr. T. C. McCracken.

CONFIDENCE

Those hardy frontiersmen who crossed the great plains in the march westward — on what did they depend for protection? There would have been more bleached bones strewn the paths through the deserts if fewer had carried Colt's fire arms.



Men Have Staked their Lives on the Name—COLT'S

EIGHTY-SIX YEARS AGO we began to manufacture fire arms that men learned to depend upon. By the time the western exodus had commenced, men everywhere were calling for Colt's arms as a vital part of their equipment. And a Colt's did not fail when it was called upon to defend them from a treacherous attack in some bleak prairie.

We treasure our name; today it is of great worth. And today we have affixed it to a new machine in a different field. We have brought to the hotel man the solution to a problem that has been his boggy for years — the problem of cleaning tableware economically.

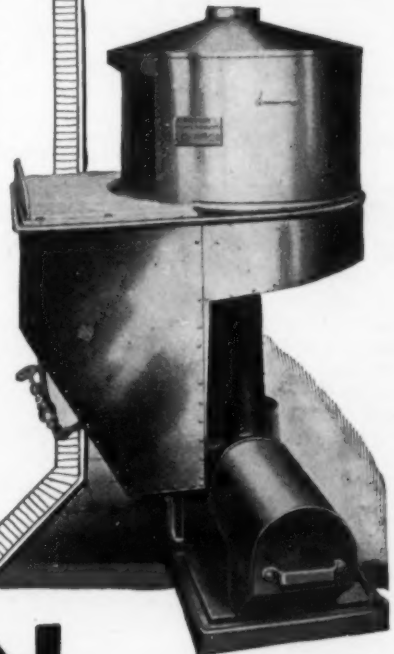
When we first looked into the hotel kitchens we found that the machine used was of inferior metals that did not endure. So we used lasting bronze. We discovered an alarming loss of dishes from breakage and chipping due to poorly-constructed apparatus. Our machine saved 60 per cent of the breakage bill. We examined the payroll of the dishwashing department and cut it in half.

We make our dishwashing machine, AUTOSAN, in the world's largest plant for the manufacture of dishwashing machinery. We make it as well and as carefully as eighty-six years' experience with metals has taught us. When we have finished and tested it, we stamp our name, and send it out — a worthy product!

Colt's Patent Fire Arms Mfg. Co.,
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We can give you only an incomplete idea here of what an excellent machine this is. Write us for Folder SA-31 and find out more about it.

A-31



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DISH AND SILVER CLEANING MACHINE

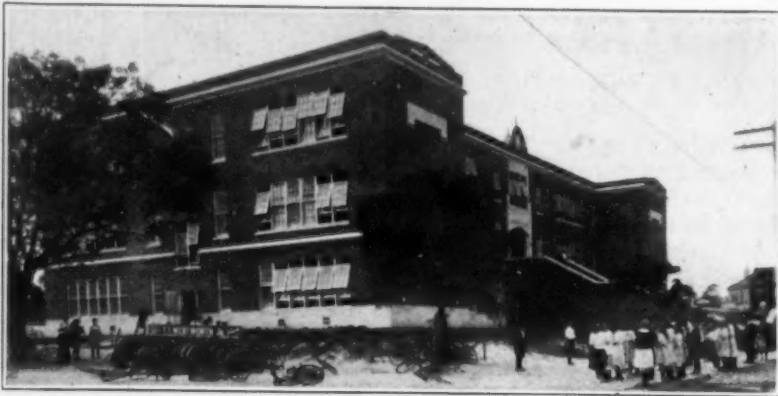
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are used by Public Schools, Colleges, Universities and Private Schools of all kinds in every state of the Union.

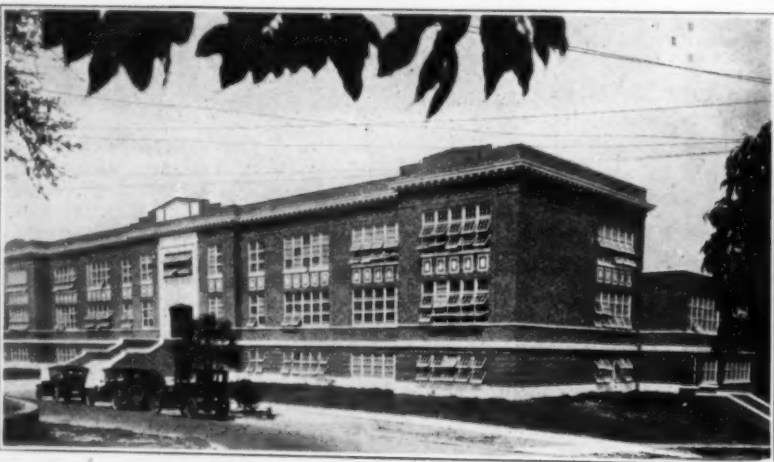
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P. K. Young Grammar School, Pensacola, Fla.



Dunham Vacuum System, 4,000 Sq. Ft. Direct Radiation.
Architect: Walker D. Willis.
Heating Contractor: Chas. A. Born.

Pensacola High School, Pensacola, Fla.



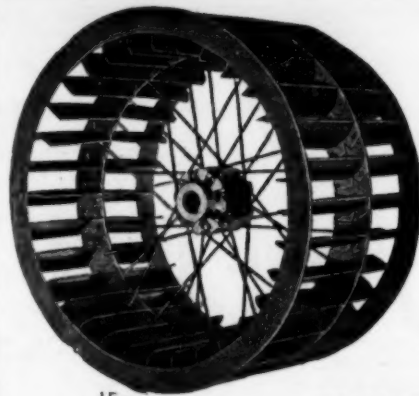
Dunham Vacuum System, 6,966 Sq. Ft. Direct Radiation.
Architect: Walker D. Willis, Pensacola.
Contractor: Charles A. Born, Pensacola.

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Bulletins describing the Dunham Vacuum System, and the Dunham Return System, will be sent on request.



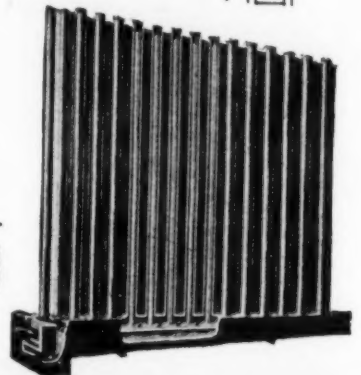
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has proven its superiority in every test to which it has been put. The Plexiform Fan excels through its ease of operation, freedom from breakdown troubles and space economy; The Chinook Heater through the fact that each tube is a complete radiator in itself and therefore free from elbows, return bends and nipples which makes replacements possible without disturbing the installation, and because it can be shipped K. D. and assembled in place, thus saving freight. There are many other reasons why you should install Bayley Equipment. Our engineers and free literature will explain them. Write today.

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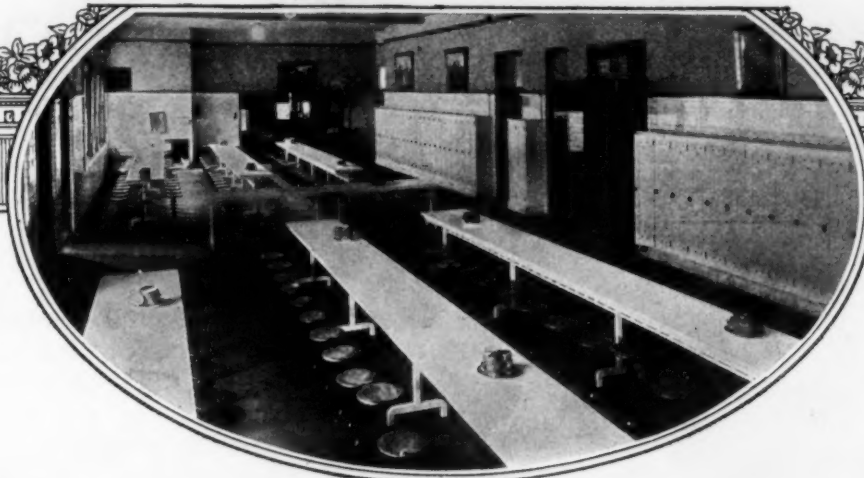


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Sani Products



Sani-Onyx is better than Marble or Tile for Wainscoting, Paneling, Baths, Toilets, Showers and Floors. Specifications requested for prices on complete installations.

A recent installation in the Spaulding School, Chicago, Ill., featuring No. 313-T Sani-Onyx Top Tables with Sani-Metal Bases and 411-P Stools.

Lunch Room Equipment that is Easy to Clean

Educators now realize the necessity of school lunchrooms—a place where pupils can get a good, wholesome meal at reasonable cost. The illustration above is typical of a modern school lunchroom equipped with *Sani-Onyx* Top, *Sani-Metal* Base Tables. We have made hundreds of similar installations in schools all over the country. For those who want the utmost in sanitation and durability, this type of equipment is more widely used than any other. You should investigate thoroughly before specifying your lunchroom equipment.

Sani-Onyx Table Tops are radiantly white, durable, easy to clean and as hard and smooth as polished glass. This type of material is non-absorbent and will not collect grease or dirt. Fruit juices and even the strongest acids have no effect on *Sani-Onyx*. No

matter what you spill, a damp cloth will remove it instantly. *Sani-Metal* Table Bases are made of special metal, heavily coated with porcelain enamel. There are no crevices for dirt and grease to collect. Wet brooms and mops which are so injurious to the ordinary varnished kind, have no effect on *Sani-Metal*. A school lunchroom is a permanent investment and requires permanent equipment. We have it.

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We will be glad to send you our illustrated literature showing all kinds of *Sani* equipment suitable for schools and colleges. Our engineering department will lay out your space free of charge.

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ONYX

New Rules & Regulations

BY-LAWS AND RULES OF THE BOARD OF EDUCATION, LANSING, MICH.

The board of education at Lansing, Michigan, on September 11th, adopted the following by-laws and rules for the organization and government of the board:

Organization.

1. The board of education shall meet on the second Monday in July at 7:30 P. M., in the office of the board of education, and organize by the election of a president, secretary, and treasurer, who shall hold their respective offices for one year, or until their successors shall have been elected.

2. The election of said officers shall be by ballot and the majority of the votes of all the members of the board shall be necessary for a choice.

3. The standing committees of this board shall consist of the following:

- Committee on teachers, textbooks, and courses of study.
- Committee on buildings, grounds and sites.
- Committee on supplies.
- Committee on finance and auditing.
- Committee on library.

Each of said committees shall consist of three members to be appointed by the president and announced on or before the next regular meeting after his election. In addition to these three, the president of the board shall be ex-officio a member of each committee.

Order of Business.

1. The board shall hold regular meetings on the second and fourth Mondays of each calendar month at the office of the board of education and the session shall commence at 7:30 P. M., unless otherwise ordered. Special meetings of the board may be held at any convenient place, upon

call of the president. Notice of such special meetings shall be given by the secretary to all members of the board, at least twenty-four hours before such special meeting is to be held. No business can be transacted at the special meeting of the board except that which is designated in the call for the meeting.

2. A majority of the board shall constitute a quorum for the transaction of business, but a less number may adjourn from time to time. In the absence of the president, the board shall appoint a president pro-tem. The superintendent of schools shall attend all meetings of the board and be granted the privilege of taking part in its deliberations, but have no vote.

3. Any and all questions arising, not provided for by special rule, shall be decided according to the parliamentary laws and usages for the government of deliberative bodies, as given in Robert's Rules of Order.

4. The following shall be the order of business at the regular meetings of the board:

- Roll call.
- Reading of and approving of the minutes of the last meeting and intervening special meetings.
- Reading of petitions, communications, notices and resolutions.
- Report and suggestions from the superintendent of schools.
- Reports of standing committees in the following order:
 - (1) Committee on teachers, textbooks and courses of study.
 - (2) Committee on buildings, grounds and sites.
 - (3) Committee on supplies.
 - (4) Committee on finance and auditing.
 - (5) Committee on library.
- Reports of special committees.
- Unfinished business.
- New business.
- Adjournment.

Duties of Officers.

1. Duties of the president:

- First—to preside at all meetings of the board.
- Second—to appoint all regular committees as provided for under "Organization," and to appoint all special committees unless otherwise ordered.

Third—to countersign all contracts and orders for money.

Fourth—to perform such other duties as may be prescribed by law.

2. Duties of the secretary:

First—to keep and sign the minutes and records of all meetings of the board.

Second—to sign all contracts and orders for money for the board.

Third—to perform such other duties as may be prescribed by law.

3. Duties of the treasurer:

First—to execute a satisfactory bond to the board, before entering upon the duties of his office.

Second—to have custody of all moneys belonging to the board and pay out the same on proper orders signed by the secretary and countersigned by the president.

Third—to report, as often as the board shall direct, all moneys received and paid out by him, and at all times keep the board informed of the conditions of various funds.

Fourth—to perform such other duties as may be prescribed by law.

Duties of Committees.

1. Duties of committee on teachers, textbooks, and courses of study:

First—to receive and consider the recommendations of the superintendent of schools, as to the employment of all teachers, principals and supervisors, and to report to the board, its recommendations of the same, for final action.

Second—to take under advisement such other affairs concerning teachers, as the superintendent of schools may, from time to time bring to its attention.

Third—to receive and consider the recommendations of the superintendent concerning textbooks and courses of study, and report to the board its recommendations of the same, for final action.

2. Duties of the committee on buildings, grounds and sites:

First—to have general charge and jurisdiction over all school buildings and grounds.

Second—to select school sites with reference to the present and future needs of the city

FOUR IN ONE *Light*



ABSENCE of glare and perfect light distribution make the Four-In-One the ideal light for school-rooms. Glare is the relentless enemy of children's eyes, and is often more harmful than insufficient light. Glare causes eye-strain which soon causes defective eyes. Greater contentment of the pupils and better work result from proper lighting such as is furnished by the Four-In-One Light.

The Four-In-One most completely solves the problem of a highly-powerful, properly-toned light. It is so scientifically constructed that no ray of light is lost. Its light source is the Mazda "C" lamp, the most economical light known. It is bug-proof and dust-proof, which guarantees full lighting value at all times and saves in upkeep.

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L. PLAUT & COMPANY

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New York

and recommend the purchase of the same, to the board for final action.

Third—To have general control and supervision of the construction of school buildings, additions, and alterations.

Fourth—To procure plans and specifications therefor when ordered by the board, and to report the same to the board for its final action.

Fifth—To negotiate, on behalf of the board, all necessary contracts in relation to such work, as may be ordered by the board.

Sixth—To have the grounds graded and walks constructed and such trees and shrubbery set out as will at all times give the school grounds a tidy appearance, when directed by the board.

3. Duties of the committee on supplies:

First—To recommend to the board, for its final action, lists of supplies needed in the schools, together with prices of same.

4. Duties of the committee on finance and auditing:

First—To act as a ways and means committee and to provide means to meet the expenses of the board.

Second—To audit and recommend the allowance or disallowance of all claims against the board.

Third—To arrange for the annual audit of the financial accounts of the treasurer and of any other individuals authorized by the board, to receive or expend funds.

Fourth—To prepare and present to the board, for its final action, the annual budget.

5. Duties of the committee on library:

First—To exercise supervision over the public library and its librarians, and to recommend to the board from time to time, a list of such books and other reading matter and equipment as they may deem necessary, for its final action.

Rules.

1. No officer, committee or employee of the board shall contract any indebtedness, or incur any obligation for or in behalf of said board, without previous direction to do so, from the board: Provided, that in cases where emergencies require the repairing of machinery or other immediate expenditure to preserve the

school property, or to keep the schools in session, the committee having charge of the department where the expenditures are necessary, is authorized to make such necessary expenditures and report the same to the board at its next meeting.

2. All committees acting upon any matter that may be referred by the board to the committee with power to act, shall report their action to the board, at the next meeting of the board thereafter.

3. All questions relating to the conduct of teachers and their qualifications, etc., shall be considered with closed doors.

4. The by-laws and rules adopted by this board shall not be altered, amended, or rescinded except by a majority vote of all members, and unless notice of the intention to move for such amendment or change shall be filed with the secretary and read by him to the board at the previous regular meeting of the board.

5. All by-laws, rules and regulations heretofore adopted by this board and inconsistent with the foregoing, are hereby repealed.

FURLOUGHS FOR TEACHERS.

—The Trenton, N. J., school board has added the following to its regulations for the government of the schools:

1. Furloughs, with full loss of pay may be granted by the board for a limited and definite period. A teacher not returning for active service at the expiration of a furlough shall be subject to charges for neglect of duty.

2. Study and Observation. Teachers who have served continuously and satisfactorily for a period of at least ten years, may under restrictions reasonably to be prescribed by rule, be granted a leave of absence for a period not exceeding one year for study and observation, with compensation. Such compensation shall be the annual contractual salary to which the teacher granted such leave would have been entitled, less substitute's pay. No such compensation shall exceed one thousand dollars or be less than one-half of the annual salary if one-half of the annual salary does not equal or exceed one thousand dollars.

3. Rest or Travel. Teachers who have served continuously and satisfactorily for at

least twenty years may under restrictions reasonably to be prescribed by rule, be granted a leave of absence for a period not exceeding one year for rest or travel, with compensation. Such compensation shall be the annual contractual salary to which the teacher granted such leave would have been entitled, less substitute's pay. No such compensation shall exceed one thousand dollars or be less than one-half of the annual salary if one-half of the annual salary does not equal or exceed one thousand dollars.

4. Teachers granted leaves of absence under this regulation shall be required to contract to serve the Trenton public school system for three years immediately after the expiration of such leave. They shall be assigned to the position held at the date of granting the leave of absence, and in case it is impossible to return at the expiration of the leave, the teacher shall reimburse the Board to the amount paid during the leave of absence.

5. In case of continued illness, the board of education may grant leaves of absence under such condition as it may prescribe.

Regulations for High School Graduations.

The school board of Saugerties, N. Y., has, upon recommendation of Superintendent J. C. Benedict who assumed office July 1, 1922, adopted the following graduation regulations:

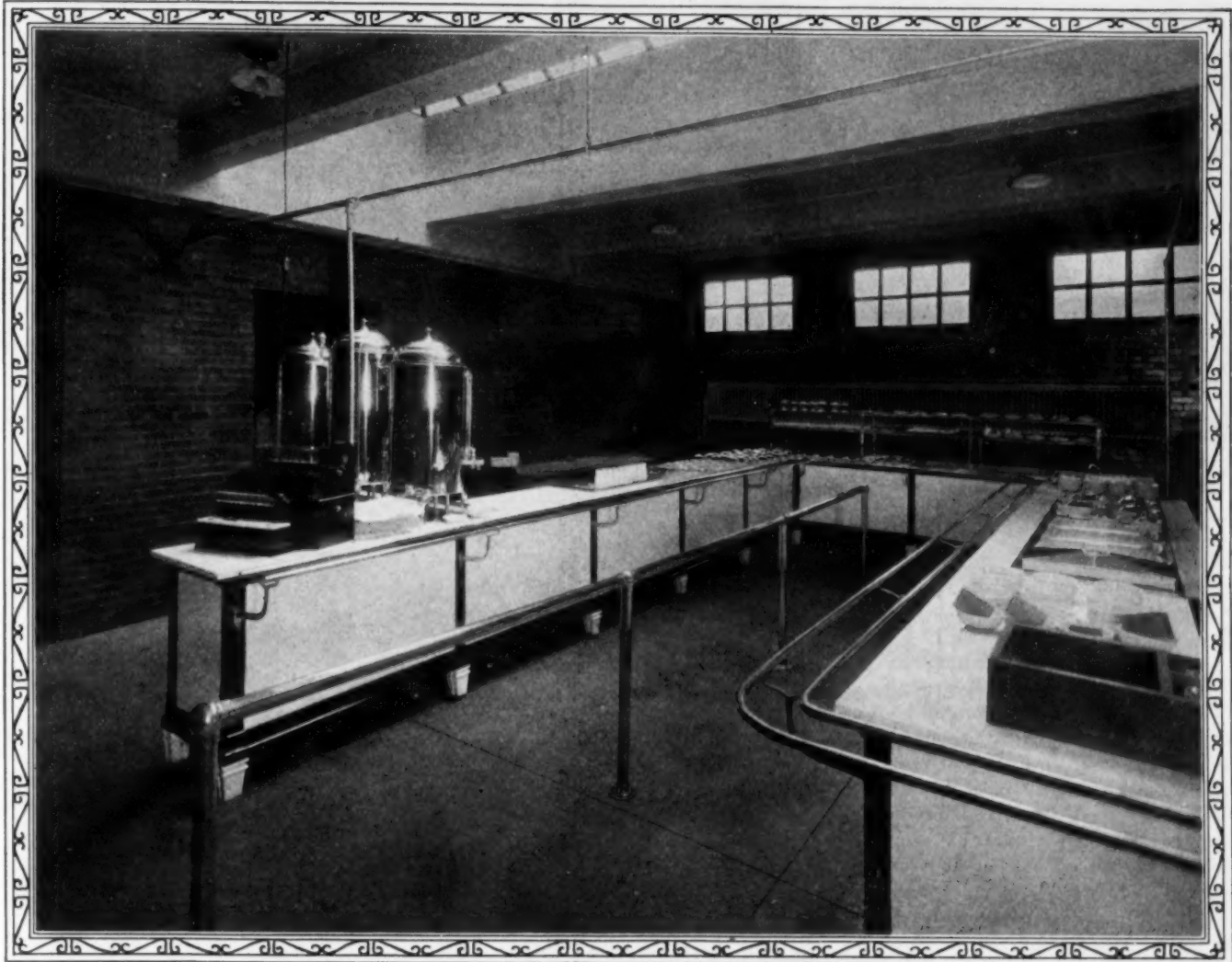
1. Pupils who have met the requirements for entrance to the senior class and who have maintained a class standing of 75 per cent in additional subjects necessary to complete the requirements for the academic or college entrance diploma, may be graduated regardless of the results of the final regents' examinations.

2. Pupils who have completed part of their academic work in schools of another state and therefore do not have regents' counts, may be given appropriate credit toward graduation on presentation of approved credentials from the schools attended.

The above exceptions are intended to relieve conscientious pupils from the nervous strain caused by not knowing, until after the regents' examination in June, whether or not they may graduate.

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COMPLETE OUTFITTERS OF SCHOOL CAFETERIAS

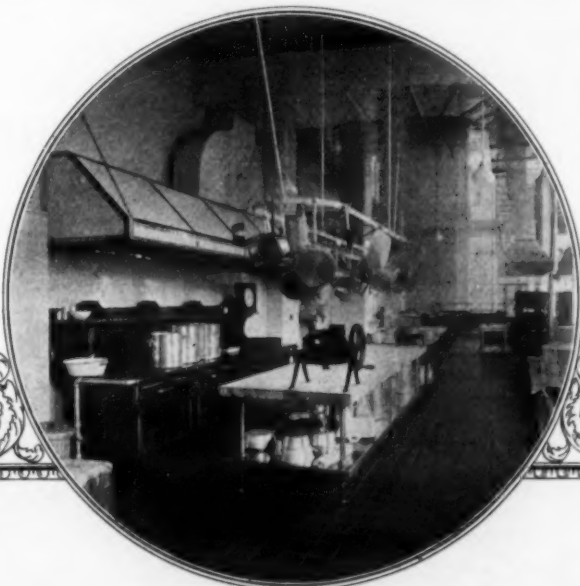


Cafeteria, McKinley High School, Canton, Ohio. Completely Equipped by Albert Pick & Company.

Built for Permanence

It is the service of years, not the economy of the moment that guides us in the manufacture of Cafeteria Equipment. Fineness of workmanship and of material are held of far greater importance than lowness of price. It is the idea for increasing utility that is eagerly sought, not the method of cheapening construction. That is why "Master-Made Equipment" is always an investment—not an expenditure.

Planning and consultation services are offered without fee or obligation.



Write for Book of School Cafeteria Installations and Plans, No. Y93.

Some School Board Members I Have Worked With

Robert Remus

Every school executive understands the importance of his professional relations with the members of the board of education. In part these relations may be adjusted by the ability and tact of the superintendent himself. To a large degree, however, the personality, education, occupation, and experience of the member will affect his usefulness as a school official and the mutual understanding and cooperation between him and the superintendent. How true this statement is may be understood from the following truthful extracts from one superintendent's note book:

Did you ever have a near bad man on your school board? I do not mean a politician or a "crook," but a kind of half outlaw. I had such a little fellow early in my career. He was also something of an author, not that he wrote books; but he very religiously recorded the village doings for the weekly paper, and occasionally he wrote verses. Punch, Judge, and Life were not half as snappy as this man's jingles. They were worth reading, not so much for the news contained, but because they were witty. Many communities would not have elected this man to the school board, but we had him and for some unknown reason he was very much interested in the schools. He put in considerable time and worked hard to improve conditions, and became a valuable asset to rural education locally. He believed in normal-school graduates, good textbooks and plenty of them, and he obtained the repair and upkeep of the school property, giving due care to heat, light and ventilation. He was some kind of a "radical" but we got along especially well, because I never tried to pry into his personal affairs. Whenever we met we always talked school, and on this basis we both prospered.

When first starting as a superintendent, I drove around to see my schools and incidentally dropped in on the several members of the board. One man was a brother or father to half the teaching force. I had never seen him. He lived several miles out of the village on a muddy cross-roads farm. I am glad that I did not own either a Ford or an automobile in those days, for on that trip I would surely have been stuck in the mud between the boulders. After exhausting considerable patience, the farm was located. But there was still considerable chasing to do before I succeeded in locating my man. His wife said that he was up in the back field. So, on and on, through the gardens, fields, pastures and woodlands I tramped, dodging the granite boulders as best I could. There were rocks in the garden, ledges in the fields; and in the pastures there were occasionally patches where even rocks would not grow. At last I found the school board member puttering away at nothing. Well, in this description of his farm and his work the man himself has been well portrayed. The result of my visit was nil.

Rural education cannot thrive under the negligence of this kind of "ruler" even though he be kin to half the teaching force. The coming of supervision in the local schools was the beginning of the end of this man's long term of holding office. We ran through the year the best we could and started out the next September with better teachers, and a better board—and without this man.

The next man who stands out in my memory was in a different state, and in a larger town. He also had several daughters on the teaching force. In this case the daughters were fairly

good teachers. There ought to be a law on the statute books of every state making it impossible for immediate relatives of board members to serve on the teaching staff. But there is no such law in this eastern state and this man like many others, thinks of the school business in terms of personal gain to his daughters and the daughters of his friends. This kind of board member has helped to get better salaries for teachers from purely selfish motives. And this has been a good thing, because it eventually means better teachers. When the school business was such that some benefit to the local teachers came out of it, all went well, but there were times when real strides in education were necessary that did not have for their ultimate end the personal gain of the local grade teachers. On such occasions this man would act real nasty. During one stormy meeting he became especially rough. If there had been a weak man in the chair, things would have gone bad. As it was the chairman at one time started for the telephone to call in an officer. This had the desired effect, and the belligerent kept still for several meetings.

The next in my experience was a wily, little politician also much related to members of the teaching staff. He was as mild a mannered man as ever scuttled ship. He always wanted what was right, but never anything else or more. The trouble was always about what was right. He could talk well and argue in circles, so that one never got anywhere, except back to the starting place. Have you ever experienced this type of an individual, the one who cuts forensic circles, one after another with impunity? This man was not always engaged in fighting. He was usually just a helpful member, trying to be affable to the other members. But beware of the time shortly after one of his especially noticeable love feasts. This man saved up his fight for special occasions, and then he safely played a game, in which he held all the winning cards. He was the leader of the left wing, so to speak, and he understood the game and played it well—not always in the interests promoting education.

The next two members were a noble pair of women board members. They were by all means the strongest men in town. They were educated, broad-minded, had no relatives on the

teaching staff, and they had no axes to grind. They saw clearly not only the present but the future. They both found a great deal of time which they gave of unselfishly to the school business. They were very busy women, and they worked not for pay. They were always constructive. One of them frequently visited the schools, and the other never visited them; but neither tried to interfere in any way. They always upheld the superintendent, not just when it was easy and convenient to do so, but always when they thought he was right, and this was most of the time. This pair of board members were a tower of strength to the school system. Of course, they came in for a large amount of criticism from a few stingy taxpayers, but they were well prepared to stand it all and more too. It is such as these who make "education safe for democracy."

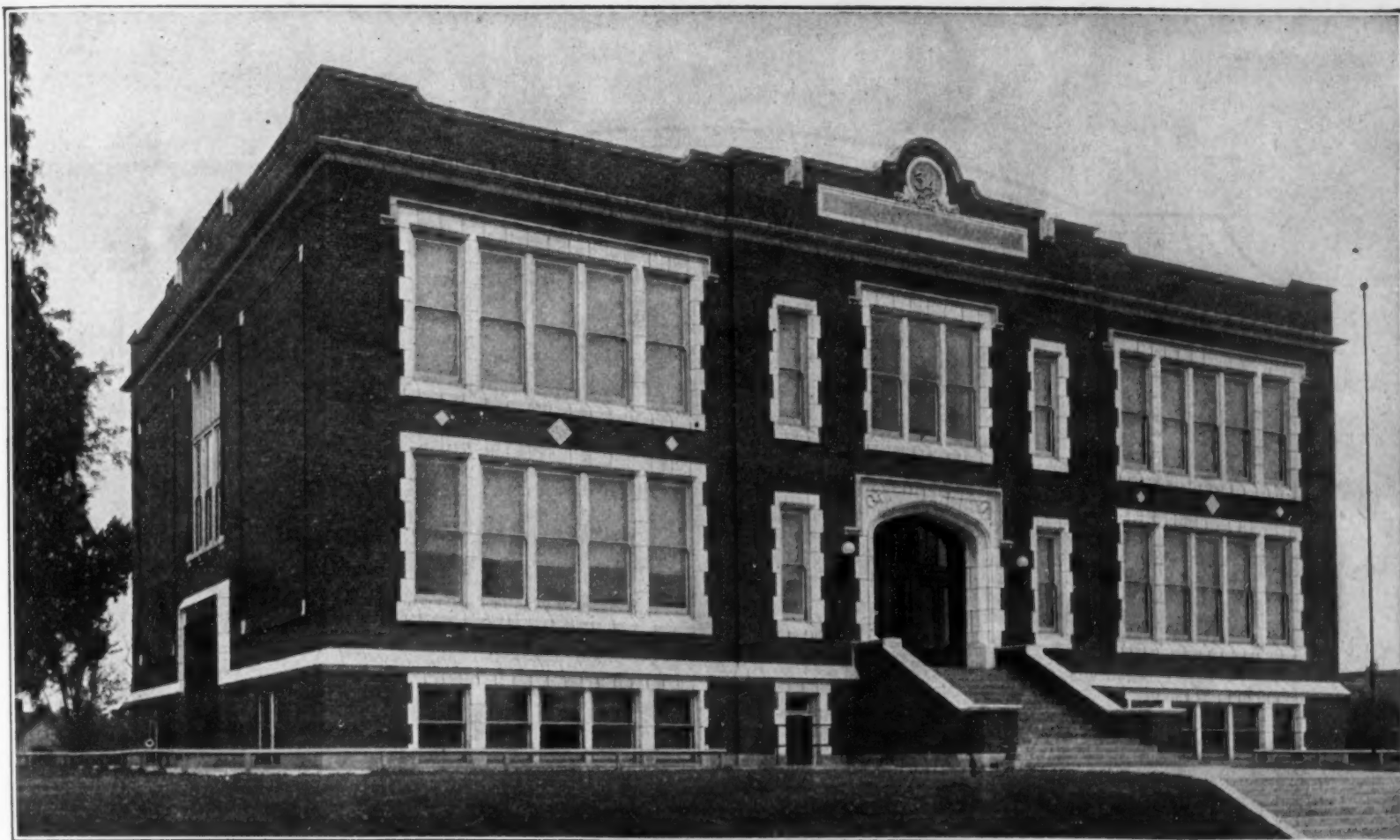
Towns and cities differ just like individuals in the amount of education they want and are willing to pay for. Those towns which want good schools should first get the right kind of school board members. A few women of the right type are a great asset. The pair just described are the best examples of ideal members. They were statesman-like in all they did. They had good business sense, and they had high ideals, and always tried to live up to them.

The next woman member was a different type. She stood high in the community. She was educated and could teach most of the high school subjects very well, but she was supercritical. How she could ride the teachers in board meetings! She never attended a meeting when she did not unburden her mind of the shortcomings of some poor teacher. She got most of her ammunition from offended parents or peeved children. She was probably interested in the schools, but she did more harm than good. Continual nagging never helps to build up a good school system. Even though her continued railings were not usually taken seriously by many of the male members, yet she had her following, and she was like a thorn in the flesh. Of course, she did not believe it right for the superintendent and the men teachers to ever smoke. They must be unlike other men to suit this fastidious lady. Men teachers in village schools should not walk up and down Main Street, blowing vortex rings, but the author is not averse to the idea of the school board member who said of a candidate who did not use tobacco. "Personally I wouldn't think any less of him if he did occasionally enjoy a good cigar." Judging school men on the whole I would take chances with the moderate smokers.

(Concluded on Page 130)



NEW ADMINISTRATION BUILDING OF THE UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, COMPLETED IN 1921 AT A COST OF \$600,000. AUDITORIUM, SEATING 2,000, LECTURE HALLS, PROFESSORS' OFFICES AND GENERAL OFFICES ARE LOCATED IN THE NEW BUILDING. ARCHITECT, JOHN PARKINSON.



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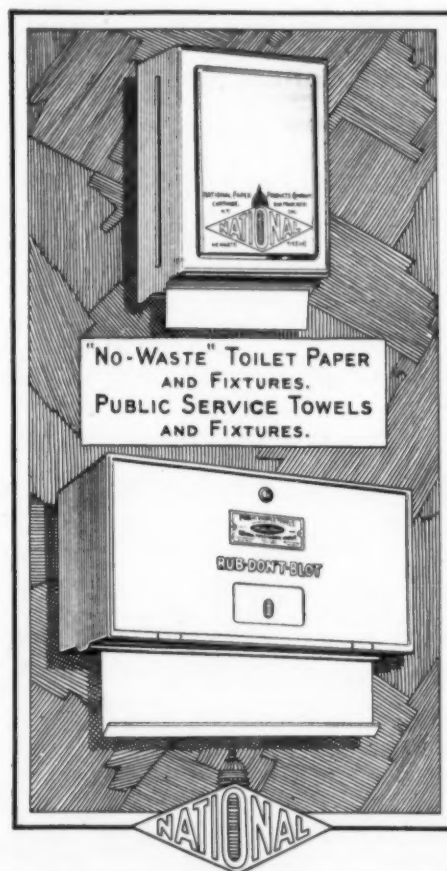
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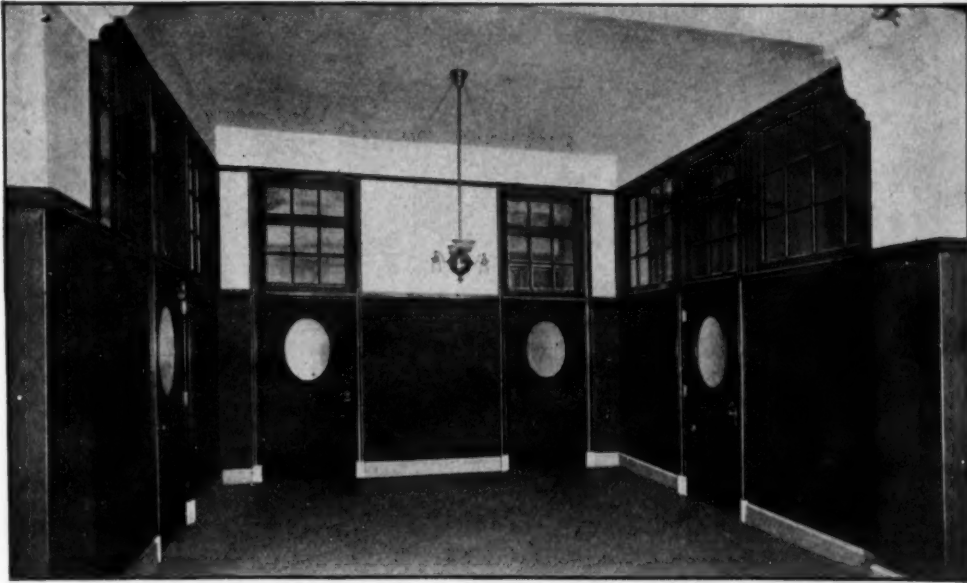
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School Administration Notes

Special Schedule Plan at Chester, Pa.

Supt. Charles A. Wagner of Chester, Pa., recently prepared for publication in the Chester daily paper, a brief summary of the special schedule plan in operation in the schools during the last year. The plan which gives the pupils an opportunity to earn an extra promotion, is described as follows:

In January, 1922, the Chester schools reported an aggregate of 1217 pupils not promoted at the mid-year term's end. In June, 905 pupils were not promoted, which is a considerably better showing for June than for January; to what may this difference be attributed? The following statements may contain the answer:

Out of the 1217 non-promoted pupils of January, 569 were selected by teachers and principals to be given a chance to make up some branch or branches in which they were behind, between January and June, 385 of the 596 worked up successfully and were promoted in June. If these 385 had not been promoted in June, the failures in June would have been 905 plus 385 which equals 1290, an even worse result than January.

This plan of extending to pupils a chance to earn an extra promotion has been called the "Special Schedule Plan," not to mention the benefit to the children who secured the promotion, which would otherwise have been lost, the school district saved a half year's tuition for each of the 385 children of \$25 per child, would amount to \$9,625. To count this a saving is entirely legitimate since it reduces the demand for seating and school supplies in the rooms and grades to which these pupils belong. They pass to higher grades where there is less congestion. To make the point quite clear, it is necessary to remember that the more terms it takes to complete the grades, the greater the cost; hence

every term saved per pupil reduces the total cost for pupil that much. Hence the special schedule work saved the board \$9,625 last spring.

The Enid Plan of Classification.

Enid, Oklahoma, is a town of about 18,000 population in the old Cherokee Strip of northern Oklahoma. The school population is almost entirely American. There are probably one-half dozen Mexicans enrolled, and that is the total of foreigners in the schools. It is seen, therefore, that there is no complex problem of classification because of a foreign element as is the case in some cities, and the uniform American population makes it quite simple to test pupils with standard tests and measurements.

Superintendent E. D. Price outlines the plan in his instructions to ward principals as follows:

Groups.

This plan provides for three groups of pupils. We will call the group with the lowest ability, group one.

We will call the group with the highest ability, group two.

We will call the group with the average ability, group three.

Steps to Be Taken in Re-Classification.

1st. Find what pupils in each grade, in the opinion of the teachers, are sure to fail in the grade. This group will be group one.

2nd. Find what pupils in the opinion of the teacher are much above the average in intelligence. This will be group two.

3rd. The remaining pupils will be average in ability. This will be group three.

Assignment of Work.

1. Give group one work to do that the pupils can accomplish and understand.

2. Give group two more than the usual amount of work that they may advance more rapidly than the course of study provides.

3. The average pupils should follow the course of study as it now is.

Mental and Physical Tests.

1. After the pupils are reclassified, test group one with Terman's tests to check up on the intelligence of each.

2. Then call Miss Anderson and have the children of group one inspected for physical con-

dition. Take steps with parents to have physical defects removed.

Consultation With Parents.

As soon as the pupils are reclassified by the mental tests, call in one by one the parents, or one of the two,—or guardian, and kindly and tactfully explain the situation. Explain that the child is unable to do the type of work required to prepare for college, but that he may be able to do well, some special type of work which will be provided in the high school. Explain also that in our special course these pupils may be promoted year by year. Then give the parent the choice of two alternatives: First, if the child takes the special course, comes regularly to school, departs himself properly, and does his best, he will be promoted. Second, the parent or guardian may choose that he fail and repeat the work.

SCHOOL ADMINISTRATION.

—Colin Linn, permanent clerk and business manager of the Nutley, N. J., Board of Education, has been reelected to his present position for an indefinite period.

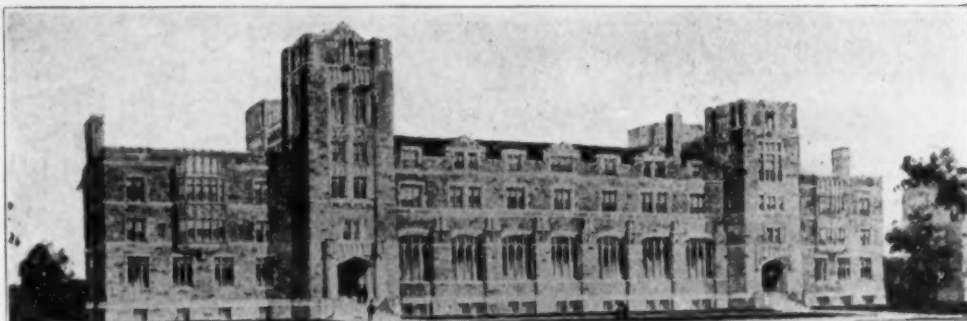
—The innovation in the schools of Canon City, Colo., is the time schedule. The schools now begin at 8.30 a. m. and close at 3:45 p. m., lengthening the school day by 45 minutes in the high school, and thirty minutes in the grades.

With an increase in the faculty of the high school at Darby, Pa., made necessary by the increase of the enrollment, it has been so arranged that one of the new teachers will function as a teacher-librarian. This teacher spends her whole time in the school library in which from 20 to 60 pupils are cared for during each period of the day. The library has wholly supplanted the study hall. All textbooks in the school are distributed through the library, and are accounted for by the teacher-librarian. The plan of having a teacher-librarian meets with the approval of the state department.

—Trinidad, Colo., has employed this year for the first time, a director of psychological research who devotes her entire time to testing and measuring and to the administrative problems resulting therefrom. The entire system is in process of reorganization, based upon the results of the tests obtained last year. They are now operating upon a five tract course of study with differential curricula for the different tracts.

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GRANITE

The remarkable feature about this work is that after a month of its operation Supt. H. M. Corning has not had a single complaint from parents or children.

—The Indianapolis school board has induced the local police department to place traffic officers at street corners near schoolhouses in crowded districts.

—The school board of Terre Haute, Ind., has extended the work of the opportunity room established last year in the Greenwood School. This year four such rooms will be in operation in charge of Miss Phillips and three experienced teachers.

—The Department of Educational Research of the Pasadena, Calif., schools recently issued the first number of an Educational Research Bulletin. The publication of the bulletin is in line with one of the chief aims of the research department, namely, to encourage in every legitimate way the spirit and practice of cooperative research. The research department publishes bi-weekly such information as the following: (1) reviews of practical research articles as they appear in the current periodicals; (2) reviews of useful books and studies in mental, social and educational measurements, (3) selected quotations from the recognized experts in educational research and guidance; (4) suggestions concerning the many research problems in which the department is interested and in which the cooperation of local school people is invited; (5) statements relative to activities and progress of research within the system; and (6) usable information concerning research activities in general.

The research department is prepared to give special assistance to the superintendent in those types of publicity work which are calculated to encourage the friendly interest and cooperation of the community. Patrons, as well as the board of education, superintendent, and faculties, need facts properly presented if they are to act wisely in matters pertaining to education.

—The school system of Berkeley, Calif., has established a visual education center located in one of the high school rooms. There is an attendant on duty every afternoon. The center is the outgrowth of the visual education committee

which has just finished its monograph on visual education.

—The Rock Hill, S. C., school district is spending \$150,000 making additions to its high school building and one grammar school. The high school building will be one unit only, it being the plan of the board to add the other unit later. The high school enrollment shows an increase this year of 70 per cent over last year at the same time. Large numbers of boys and girls from the rural district, where they haven't the high school facilities, are taking advantage of the high school facilities here. While it is an added expense and burden to the Rock Hill school district, the board of trustees have always opened the doors wherever it was possible to the boys and girls of the surrounding country, believing that the people from the rural districts help in a very large way to make the town.

—Torrington, Wyo., is erecting a new school building and expects to occupy it early in the year. The building is to cost, when completed and fully equipped, about \$175,000. It will house the vocational agriculture, home economics, normal training and commercial courses in addition to the regular courses found in high schools. The intention of the school authorities of Torrington is to build the school activities around the professions, vocations and industries of the community, thus taking care of the very large number of young people who never go beyond the elementary or high school.

—Holyoke, Mass. The school board has asked the cooperation of the local police department in regulating the traffic near school buildings and in eliminating the practice of hanging around the buildings in the evenings.

—Milwaukee, Wis. An increase in the bond limit for school buildings to make possible the erection of two more high schools and six more grammar schools, and fixing of higher standards of qualifications for supervisors, principals and teachers were the principal recommendations made in the recent annual address of President James H. Derse of the board. Mr. Derse pointed out that the present building situation is due to the world war, industrial conditions and the extremely high prices. The enrollment in both grammar and high schools has far exceeded ex-

pectations. The enrollment in the grammar schools estimated as possible in 1926 was actually reached in 1921, five years ahead of time. Instead of caring for 6,500 students in the high school, the faculties are struggling under a load of 9,222 students, a surplus which would fill more than two large high schools. Concluding his statement, Mr. Derse declares the schools are three years behind in their building program and there are needed at the present time not less than six additional grammar schools and two more high schools.

—West Allis, Wis. The sum of \$100,000 has been included in the 1923 educational budget for a new school in the fourth ward.

—The school board at Ogdensburg, N. Y., has employed Dr. N. L. Engelhardt of Columbia University to make a school building survey of that city.

Superintendent M. L. Cotton has introduced group and special tests in grouping children.

A Bad School Finance Muddle.

—At West Frankfort, Ill., the schools were closed on September 25th owing to a shortage of funds and will remain closed owing to the defeat of a \$63,000 bond issue by popular vote. More than 3,800 children are without a school.

Closing of the schools became necessary when ninety-one teachers quit following defeat of a \$63,000 bond issue to pay outstanding orders after banks refused to handle more orders. The situation arose when funds were held up by litigation seeking to dissolve the consolidated district.

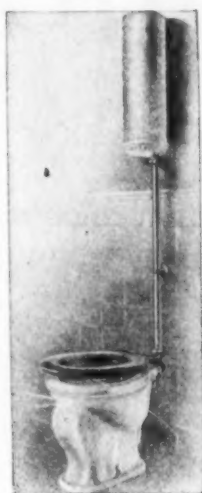
Opposition to the bond issue was led by farmers and labor leaders, who opposed forming the consolidated district two years ago. The district includes all city schools and embraces all former rural districts in Denning and Frankfort townships.

The coal strike has been held indirectly responsible, as many miners have been unable to pay taxes.

The authorities are not clear as to the solution. The state officials hold that they cannot assume control of the schools, nor can state school funds be applied where the locality has failed to tax itself properly.

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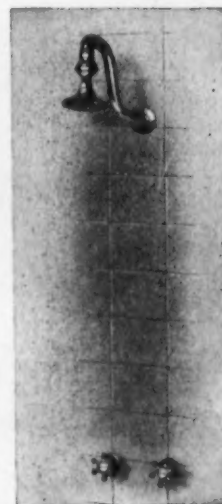
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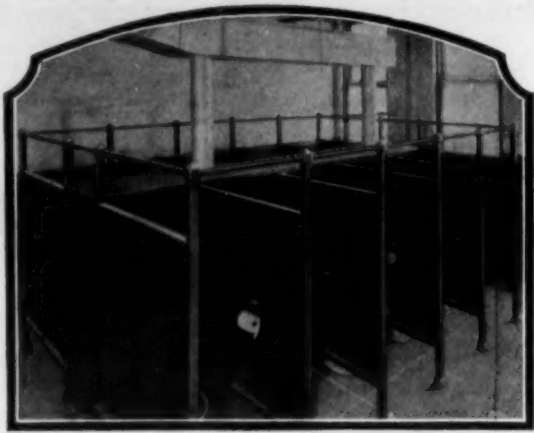
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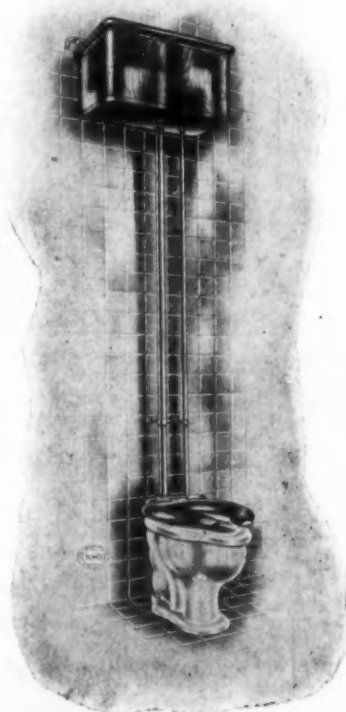
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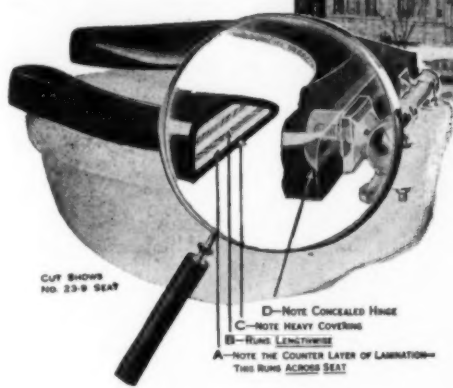
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High School Administration

PART-TIME HIGH SCHOOL TRAINING. A Typical Program Enabling Full-Time Schooling.

The phenomenal crowding in the schools of New York City has necessitated provisions whereby the buildings are rendering a maximum service. By skillful arrangement of hours and programs, high school principals and their faculties have been able to provide for enormous increases in the registers, and doing it on full-time double sessions.

The term "part time" is statistical rather than real. The pupils receive practically full-time studies, but are subject to certain shifts as to hours in order to accommodate the entire 69,000 pupils now taught under the part-time system.

The reason these students are classed as on "part time" is because they are "in school" less than five hours. For thousands of these boys and girls the school day has been reduced only by one study period, but that has been enough to put them on "part time". Some are not getting all of the physical training required. Out-of-school activities, too, have suffered from the double-session programs, but in nearly all the schools the students on "part time" are attending school the same number of "instruction periods" as are the full time students.

Washington Irving, one of the most overcrowded schools, is conducting four distinct sessions. The first year class attends in two separate four and a half hour sessions, from 8:05 a. m. to 12:30 p. m., and from 12:30 p. m. to 5 p. m. The higher grades attend in overlapping sessions of six hours each. "We may have eliminated study periods and lunch hours, but that is all," declared Principal Zabriskie. "The course

of study remains unchanged. Full-time instruction is provided for every one of our girls."

Conditions in other high schools are similar. There is overcrowding in space, but no curtailment in hours. The normal amount of instruction is being offered. The hours in the technical and commercial schools are somewhat longer than those in other schools because of the addition of specialized work to the regular academic program. It is largely the first term general high school pupils who fall into the artificial "part-time".

High school principals declare themselves mystified by the application of the term "part-time" to high school attendance. Principal Paul of De Witt Clinton, in a statement to the press, said: "The boys in my school are taking the same number of courses and attending the same number of periods as they did on single session. The only concession we have made to special exigencies has been the shortening of the period by a few minutes. This time is not taken from the instruction period, however, but has been deducted from the time allotted each hour for study. In spite of these conditions we have been compelled to list our entire student body as "part-time" pupils because our regular academic day happens to be only four and one-half hours."

A typical first-year "part-time" schedule of a De Witt Clinton boy includes four periods of English, five of Latin, five of mathematics, four of civics, five of biology, two of drawing, three of physical training, and one each of music and elocution, making a total of thirty periods per week. The periods are forty-five minutes each and run in two, four and one-half hour sessions from 7:50 a. m. to 12:30 p. m., and from 12:30 p. m. to 5:15 p. m.

How Mandan, N. D., Meets Overcrowding.

—At Mandan, N. D., the central grade building and the high school buildings are badly overcrowded. A handsome new ward school is being built and will be ready for occupancy in the spring.

To relieve the situation in the grades the following plan is being followed in the first six grades: Each grade is divided into two divisions and two teachers are provided. The first divi-

sion comes at 8:00, goes at 10:00, comes again at 1:00 and goes at 3:10. The second division comes at 9:50, goes at 12:00, comes again at 2:50 and goes at 5:00. Each division has its own teacher.

This program provides two twenty minute periods during the day when all pupils of both divisions are present for singing, gymnasium, writing, etc. The plan is working well, the patrons are pleased with it, and the pupils are making better progress than under the old system.

A new senior high school building will be erected during 1923. The present grammar department, consisting of the 7th and 8th grades, will be combined with the 9th grade and, as a junior high school will occupy the present high school building. The present high school building has been built only five years and its capacity was taxed the second year.

SPECIAL STUDIES.

—The public and parochial schools of Rockford, Ill., were recently familiarized with the charity labors and institutions of that city. The work was directed by the secretary of the Social Service Federation.

—The Rockford, Ill., schools conducted an art exhibition in October the proceeds of which will go towards purchasing new works for the schools.

—The Ohio law which forbids the teaching of German in the public schools is being contested in the Supreme Court of the United States. The claim is made that if the state can forbid the study of German that it can forbid any other study and that such restriction is unconstitutional.

—The Richmond, Va., school board in conjunction with the Community Recreation Association, will conduct four recreation and community centers in schools during the winter months. The city recreation department will conduct two such centers in school buildings. The school board is equipping all new buildings with motion picture machines. Fourteen school buildings will show educational films this session.

The Technique of Test-Making

How to Standardize an Oral Chemistry Test

J. N. Mallory, Union University, Jackson, Tenn.

In April of 1921 a comprehensive survey of the public schools of Humboldt, Tennessee, was undertaken by the writer.¹ An effort was made to find standard tests suitable for each of the high school subjects. When tests in chemistry that were thought to be adapted to the class of pupils usually found in the high schools of the small towns were not found to be available, it was decided to make and standardize a list of questions for the purpose. This report gives briefly the methods used and the outcome of the project.

Selecting the Questions.

Not being satisfied to select questions that called for single word answers, and knowing that difficult problems could not be given unless the time element was extended, the writer was confronted with this question, "What should be the nature of the questions selected?" It was finally decided to select questions that could be answered in as few words as possible, but to include longer ones where it was believed that specific answers could be obtained. To begin with, fifty questions were chosen from McPherson and Henderson's text with such additions from other texts as were found necessary in order to make the list a representative one. Some of these questions called for single answers, some for composite answers, and others for definitions. This procedure was known to be somewhat in violation of the rule for short answers, yet it appeared to be the kind of material needed for this particular test. These fifty questions were later submitted to two professors of chemistry and such of them as were found to be vague were either modified or replaced. The final approved list of fifty questions, after being carefully stated, were printed and used in the process of standardization.

Methods of Standardization.

In order to evaluate and standardize these questions they were submitted to one hundred first year chemistry students in high schools and preparatory schools of Tennessee. Methods and conditions regulating the giving of the preliminary tests were made specific. As an oral test was desired, this was the method used in standardizing. The questions were read aloud to the pupils, each question being repeated once only. The pupils were given only one minute to answer each question, except in the case of questions 11, 12, 14, and 20, where the time was extended to two minutes. At the expiration of one minute another question was read. This was continued until all the questions had been read. When the list was finished the papers were taken up and sent in without being graded. The grading and tabulating was all done by the writer.

The value of each specific problem was arrived at by means of the normal curve. Rugg's tables for assigning values according to the per cent of pupils who failed to answer each question, were used. In this way values were given the questions as shown in table two, column four. These numbers were larger than desired for scale values and were divided by twenty, a process which gave the results shown in column five.

The list of questions was after the trial considered longer than was needed for a single test, and was divided into three groups as nearly equal from the standpoint of difficulty as possible. Question 40 had been overlooked in pre-

paring the lists to be sent to some of the schools and was thrown out. From the fact that only three out of the one hundred students attempted question 44, it was adjudged too difficult and was also thrown out. This left, after division, sixteen questions in each group. The result of the division is shown in table three. The total possible scores in the respective groups are 41.2, 40.95, and 40.8. To test the soundness of this division, papers of school C were gone over a second time. Questions that were answered correctly were assigned to their proper groups and scored. The average scores in these groups were 21.6, 19.6, and 18.1, respectively, numbers which correlate fairly well with the totals for the respective groups.

Testing the Humboldt Classes.

For the Humboldt School tests, C from the above list was selected. It was given in the same manner as the preliminaries had been, every precaution being taken to regulate the controls. The papers were scored and the results tabulated as shown in table five. It will be observed that both the junior and senior classes in this school took the test. Both of these classes had been taking the subject during the entire year. These classes were examined at the same time but in separate rooms. It was soon discovered that the seniors had done much better than the juniors. In fact, they had made a median score of more than four points higher than that of the juniors. The reason for this was sought. When it was remembered that considerable confusion had prevailed in the hall outside the room while the test was going on, due to the fact that other students were being dismissed from rooms up-stairs, it was decided to repeat the test. A second trip was made to the school and the juniors were examined a second time. Notwithstanding the fact that the same questions were submitted to the class, they were unable to improve their score. In fact, they raised the former median score less than one point. The last result, however, is the one shown in the table below.²

As a means of comparison, all papers obtained from the preliminary tests were gone over, and all questions belonging to group C were scored. The results thus obtained are recorded along with the Humboldt data in table five. From the one hundred papers it was found that the composite median score for group C was 17.1. For the present this may be taken as the norm. As compared with this norm, the Humboldt seniors were relatively good, the juniors poor, High School D near the norm, while the preparatory school C ranked next to the highest.

The results obtained at Humboldt raise an interesting question. If these questions are sound, and if they are reasonably well standardized, one could reason that seniors are relatively much better prepared to do high school chemistry than juniors. With this question in mind, the matter was looked into a little farther. It was found that these classes had had their lecture work together and had been given the same laboratory work and had worked in mixed groups. From this it seems that they had had equal chances but had made unequal progress. The question is, "Should students be allowed to take chemistry before the senior year?"³

¹In scoring papers half credit was given for "physical properties" in No. 7, half credit for half answers in Nos. 19, 33, 34, 43, 46, 45, and one-third credit for each part of Nos. 8 and 39.

²These questions may be used as first, second and third term tests by dividing into three groups with respect to the three divisions of the book.

A CHEMISTRY TEST.

(Preliminary.)

(To be given in May to high school pupils.)
Instructions: Tell the children that the questions will be read only twice and that they will be given all the time they wish, except that the time for any single problem or question shall not exceed one minute. Then begin by reading the first. When all are through, or at the expiration of one minute, without saying anything further about the time, read the second, etc. When all have been read, take up the papers. The teacher or examiner should score the papers.

Instruct pupils to make their answers short, usually words or phrases.

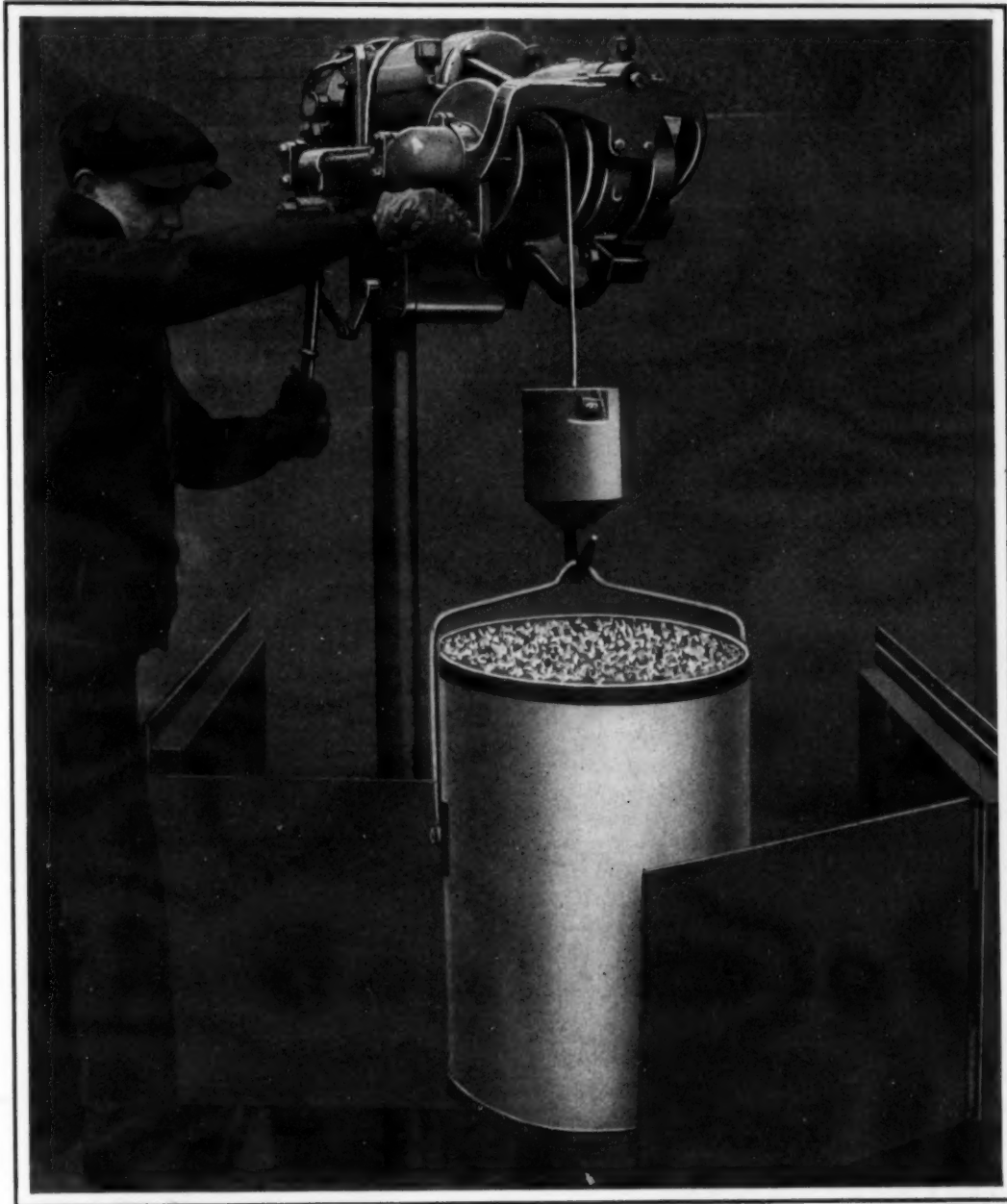
Note: Give two minutes on Nos. 11, 12, 14, and 20.

1. What is a chemical change?
(Ans.) One in which there is a change in composition.
2. Define chemistry.
(Ans.) The science which deals with a change in composition.
3. Name the three kinds of chemical substances as to composition.
(Ans.) Elements, compounds, and mechanical mixtures.
4. Define a chemical compound.
(Ans.) A substance containing two or more elements that cannot be separated by physical means.
5. Name the three physical states of matter.
(Ans.) Solids, liquids, and gases.
6. Define an element.
(Ans.) A substance that cannot be reduced to simpler substance by any known means.
7. Give the symbol, atomic weight, and valence of oxygen.
(Ans.) O, 16, 08, 2.
8. Mention three methods of preparing oxygen.
(Ans.) (Any three.) Electrolysis of water; decomposition of oxides, or potassium chlorate, etc.
9. State the law of Charles.
(Ans.) Any correct statement of it.
10. State the law of Boyles.
(Ans.) Any correct statement.
11. What weight of O. can be prepared from 10g. water?
(Ans.) 8.88 plus. (Give two min.)
12. Find the weight of one liter of H. at 20 degrees C. If it weighs .0898 g. at O.C.
(Ans.) .08367.
13. Give four physical and two chemical properties of H.
(Ans.) Colorless, tasteless, odorless, lighter than air; burns, is not active at ordinary temperature.
14. One liter of gas was measured at 760 mm. pressure had been reduced to 750 mm. It was again measured. Find the Vol.
(Ans.) 1.0133 liters.
15. Name three methods used in purifying water.
(Ans.) Distillation, filtration, boiling. Also: Treating with chemicals such as chlorine, or chloride of lime.
16. State law of definite composition.
(Ans.) Composition of chem. compound never varies. (Any reasonable answer.)
17. Distinguish between a molecule and an atom.
(Ans.) A molecule is the smallest physical division, the atom the smallest chemical division.
18. State the law of multiple proportion.
(Ans.) (See any text.)
19. Mention four kinds of reactions.
(Ans.) Addition, decomposition, substitute, double decomposition.
20. What weight of zinc can be dissolved in 100g. of H₂SO₄?
(Ans.) 6.6g. plus.
21. Give two chief sources of nitrogen.
(Ans.) Air, Chili saltpeter.
22. Mention three specific things that help to determine the amount of a solid that will dissolve in a liquid.
(Ans.) Temperature, nature of the substances. (Solid and Solvent.)
23. Define an acid.
(Ans.) Substance which produces hydrogen ions in water solutions.
24. Define a base.
(Ans.) Substance which produces hydroxyl ions in water solutions.
25. Define a scale.
(Ans.) Substance formed by the union of anion of acid with cation of base.
26. Give three characteristics of an acid.
(Ans.) Contains H., forms H. ions in water solutions, tastes sour, effect on indicators.

(Continued on Page 101)

³The Writer was ably assisted in this survey by L. D. Rutledge, Professor of Education, Union University, Jackson, Tennessee.

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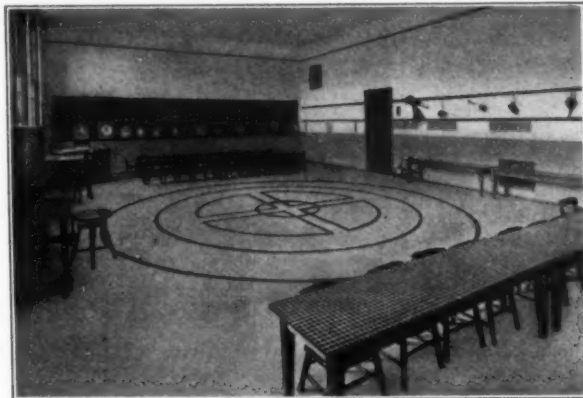
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(Continued from Page 98)

27. Give three characteristics of a base.
(Ans.) Contains hydrogen and O., forms OH ions in water solutions, soapy feel, brackish taste, effect on indicators.
28. Give three characteristics of a scale.
(Ans.) No definite elements necessary, no peculiar taste, no effect on indicators, forms two kinds of ions.
29. Define neutralization.
(Ans.) Union of H. and OH. ions to form water.
30. Define a radical.
(Ans.) Group of elements acting as a unit in chemical reactions.
31. Balance the equation: $\text{NaOH} + \text{H}_2\text{SO}_4 = \text{Na}_2\text{SO}_4 + \text{H}_2\text{O}$.
(Ans.) Double NaOH and H₂O.
32. State the periodic law.
(Ans.) Properties of elements are periodic function of At. Wts.
33. Name the elements of the chlorine family.
(Ans.) Cl, I, Br, Fl.
34. Name five common examples of carbon as it occurs as an element in nature.
(Ans.) Coal, coke, charcoal, boneblack, lamp-black.
35. Show by a drawing the positions of the oxidizing and reducing flames.
(Ans.) Oxidizing, outer; reducing, inner.
36. Define valence.
(Ans.) Holding power of an element compared with that of H. or Cl.
37. Mention a test for arsenic.
(Ans.) Marsh's test.
38. Write a formula for glass.
(Ans.) NaSiO_3 , KSiO_3 , etc.
39. Mention 3 methods of separating metals from their ores.
(Ans.) Reduction of oxides with C. Reduction of oxides with Al. Electrochemical process.
40. Omitted.
41. What substance is the chief product of the Bessemer furnace?
(Ans.) Steel.
42. Write two formulae for chloride of iron.
(Ans.) FeCl_2 , FeCl_3 .
43. Name the alkaline earth metals.
(Ans.) Li, Na, K, Rb, Cs.
44. Define organic compound.

- (Ans.) A compound that contains C.
45. Write two formulae for sugar.
(Ans.) $\text{C}_6\text{H}_{12}\text{O}_6$, $\text{C}_{12}\text{H}_{22}\text{O}_{11}$.
46. Write formulae for bluestone and baking soda.
(Ans.) $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$, NaHCO_3 .
47. What is the usual laboratory test for O?
(Ans.) Supports combustion.

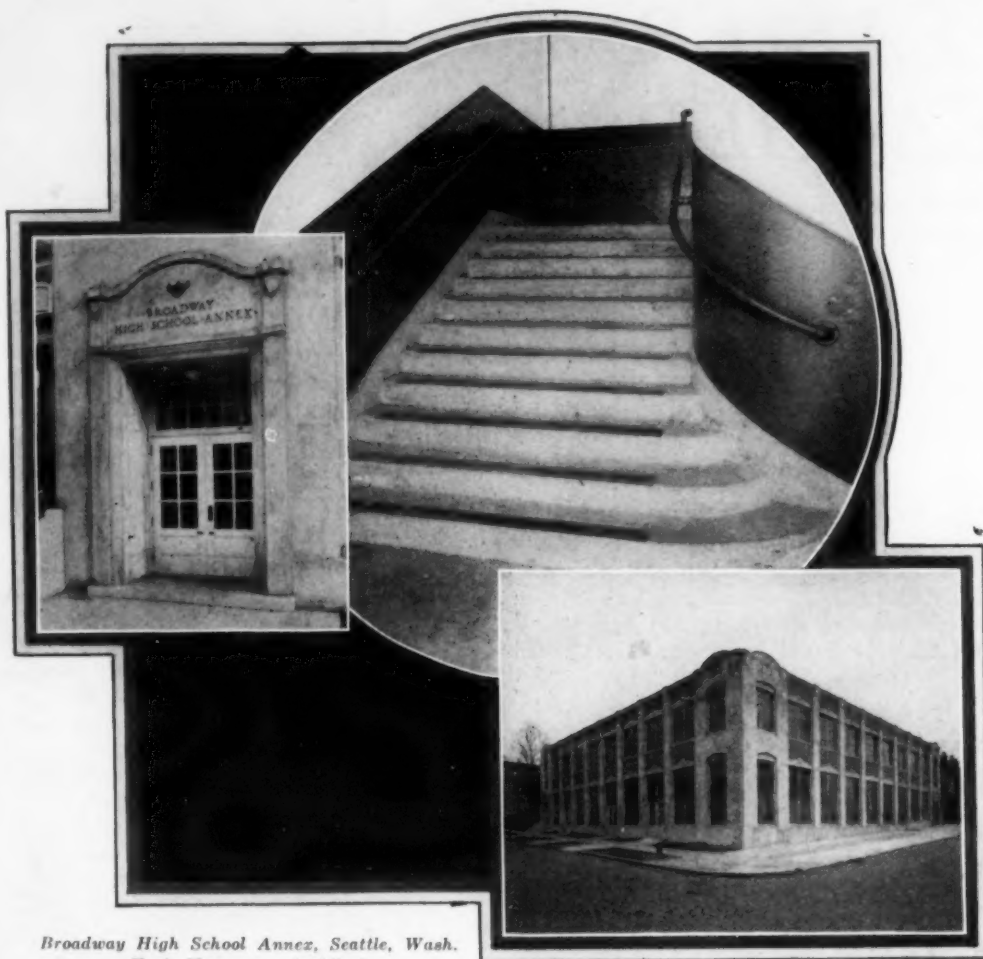
48. What is the usual laboratory test for H?
(Ans.) Burns in air.
49. What is the usual laboratory test for acids?
(Ans.) Indicators (blue paper turned red).
50. What is the usual laboratory test for bases?
(Ans.) Indicators (turns paper blue).

TABLE ONE.

No.	The way the schools responded.			
	School A	School B	School C	School D
1	33	26	6	22
2	35	25	5	25
3	9	2	4	10
4	28	21	5	25
5	35	24	6	22
6	30	16	5	20
7	33	17	6	27
8	16	13	5	15
9	16	5	6	4
10	18	20	6	3
11	11	5	2	19
12	3	5	2	0
13	23	16	5	22
14	8	5	5	11
15	28	12	6	24
16	18	7	2	3
17	4	4	1	10
18	16	14	3	21
19	28	22	4	13
20	2	6	2	10
21	13	17	1	17
22	15	7	2	17
23	17	16	4	17
24	17	14	3	15
25	11	8	2	9
26	10	19	6	14
27	8	17	6	22
28	4	7	0	2
29	11	17	3	17
30	13	9	0	4
31	23	19	6	20
32	8	17	1	7
33	14	22	5	20
34	21	15	2	24
35	15	17	0	16
36	13	20	5	14
37	2	7	0	2
38	7	10	3	12
39	5	4	1	20
40	3	6	0	—
41	5	17	0	21
42	6	10	3	18
43	0	4	1	13
44	0	3	0	0
45	10	4	0	1
46	5	12	2	18
47	20	21	7	17
48	13	18	1	17
49	23	26	6	18
50	22	20	6	17

TABLE TWO.

The way the questions were evaluated.				
Pupils Ans.	Pupils Missing	Percent Missing	Percent Values	Scale Values
87	13	13	28	1.4
90	10	10	24	1.2
25	75	75	63	3.2
79	21	21	33	1.7
87	13	13	28	1.4
71	29	29	30	1.95
83	17	17	31	1.55
46	54	54	52	2.6
31	69	69	60	3
39	61	61	56	2.8
37	63	63	57	2.85
10	90	90	76	3.8
66	34	34	41	2.05
29	71	71	69	3.45
70	30	30	39	1.95
30	70	70	61	3.05
19	81	81	68	3.4
54	46	46	48	2.4
67	33	33	41	2.05
21	79	79	67	3.85
38	62	62	56	2.8
41	59	59	55	2.75
54	46	46	48	2.4
49	51	51	51	2.55
30	70	70	61	3.05
49	51	51	51	2.55
43	57	57	52	2.6
13	87	87	72	3.6
48	52	52	51	2.55
26	74	74	62	3.1
68	32	32	40	2
33	67	67	59	2.95
61	39	39	44	2.2
62	38	38	44	2.2
58	42	42	46	2.3
48	52	52	51	2.55
11	89	89	75	3.75
22	68	68	60	3
31	69	69	60	3
—	—	—	—	—
42	57	57	52	2.6
37	63	63	57	2.85
18	82	82	69	3.45
3	97	—	—	—
15	85	85	80	4
37	63	63	57	2.85
60	31	31	40	2
49	51	51	51	2.55
73	27	27	37	1.85
67	33	33	41	2.05



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TABLE THREE.

Form I—A Question Value	Form II—B Question Value	Form III—C Question Value
1 1.4	2 1.2	2 1.2
3 3.2	6 1.95	4 1.7
7 1.55	9 3.	5 1.4
8 2.60	12 3.80	10 2.80
14 3.45	15 1.95	11 2.85
17 3.40	18 2.40	17 2.05
20 3.85	22 2.75	16 3.05
23 2.40	25 3.05	19 2.05
27 2.60	29 2.55	21 2.80
31 2.00	30 3.10	24 2.55
35 2.30	33 2.20	26 2.55
39 3.00	34 2.20	28 3.60
42 2.85	38 3.00	32 2.95
47 2.00	41 2.60	36 2.55
48 2.55	46 2.85	27 3.75
50 2.05	49 1.85	43 3.45
41.20	40.95	40.80

TABLE FOUR.

Average response of School C to Questions in Each of the Three Forms.

Form A. 21.6	Form B. 19.6	Form C. 19.1
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TABLE FIVE.

Comparison of Medians for several Schools using form C as basis for scoring.

School	Range	Median	Standard Deviation
Humboldt 11th Grade.....	23	15.6	6.20
Humboldt 12th Grade.....	20	18.8	5.79
"C"	28	18	9.42
"D"	27.7	16.9	7.37
Temporary Norms	25.4	17.2	2.05

The graphical representation of the distribution of the misses in the preliminary tests is

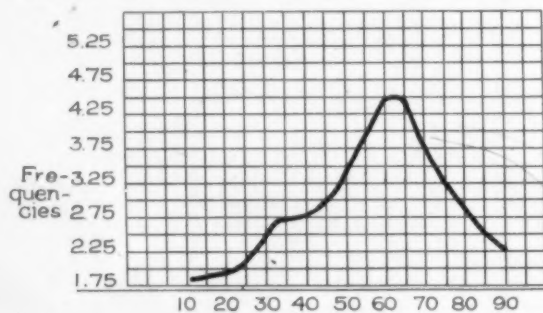


FIG. 1.

Graph showing percentage of pupils out of 100 in four schools that missed each of the 50 questions submitted in chemistry. The figures at the bottom are the per cent failures taken from the data mentioned above smoothed four times.

shown below. This brings out the fact that there are more very difficult and fewer very easy questions in the list than there are of median difficulty. The curve is slightly skewed to the right, and the number with a difficulty of 85 to 90 is greater than the corresponding number at the other end of the curve. One of the weakest positions of the curve is found from 35 to 45. This might not be so much in the list of questions, however, as in the way that the four selected groups responded to them. Other groups might respond to them a little differently. In general, however, one would say that the curve resembled very much the normal curve, and this might be regarded as a point in favor of the soundness of the selection, both of schools and of questions.

TEACHERS AND ADMINISTRATION.

Terre Haute, Ind., established her first Opportunity Room last year at Greenwood School with Miss Ora Phillips in charge. The work in this room was so successful that the school officials decided to extend the work. This year four such rooms will be in operation in charge of Miss Phillips and three other experienced and trained teachers for such work.

It is reported at Detroit, Minn., that every teacher is taking one or more professional periodicals. Twenty-three out of 44 attended summer school. The board pays a bonus of \$5 to those who attend.

At Greenport, N. Y., the new year opened with an entirely new high school staff. Frank A. Wanglar, formerly director of agricultural project work at Woodstown, N. J., and a graduate of Syracuse University, is the new principal. Superintendent Swanson announces that he is confident that the wholesale change in the teaching force is for the better. The new teachers are more mature, and on the whole much better equipped for their work. The business-like fashion in which they have entered upon their duties is already reflected in the attitude of the student body and throughout the community. The board of education has taken a

firm stand against the retention of the "flapper" type of teacher.

At Streator, Ill., the number of new teachers at the fall opening of schools was only 14 per cent as against 25 and 50 per cent during the last few years.

New York, N. Y. The teachers' retirement board has adopted a budget for 1923, calling for an appropriation of \$3,858,589 by the board of estimate and apportionment. The appropriation is an increase of \$537,638 over the year's allowance of \$3,320,951.

TEACHERS' SALARIES.

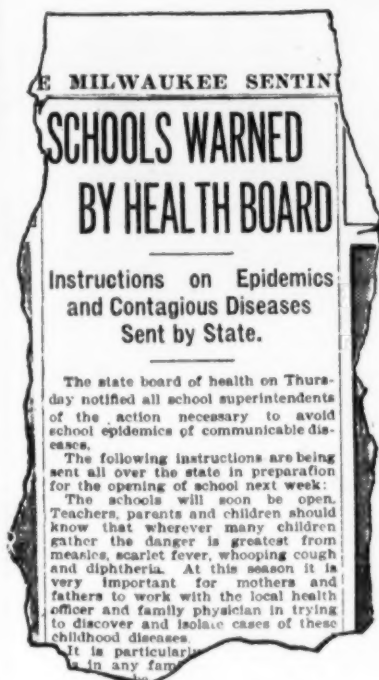
The salary schedule of North Adams, Mass., has been revised upward by increasing the maximum salary of grade teachers from \$1250 to \$1350, and the annual increment from \$50 to \$100. High school instructors (women) were increased from \$1500 to \$1600. Heads of departments and all administrative positions have been placed on a merit basis.

South Amboy, N. J., recently made an adjustment in teachers' salaries that is especially pleasing to the older teachers in service. Those who had served six years and more were not receiving as much as they should have when compared with the salaries paid to beginning teachers who were employed during the past four years. According to the new schedule they will receive from \$150 to \$400 more than they did for the year 1921-1922. The minimum salary for elementary teachers is now \$1150, and the maximum is \$2000.

The salary schedule in the high school at Lufkin, Texas, ranges from \$1125 to \$2000 per year. In the grades the salary ranges from \$75 per month to \$115. A few years ago the board paid \$90 a month in the high school and \$55 in the grades.

New Haven, Conn. The teachers' league has intimated that it will seek legal advice as to its status in connection with the recent refusal of the board of finance to grant the regular salary increases in the 1923 budget, which had been adopted by the board of aldermen. The teachers are proceeding on the assumption that the salary schedule adopted by agreement between them and the board of education two years ago will be found a contract binding upon the city.

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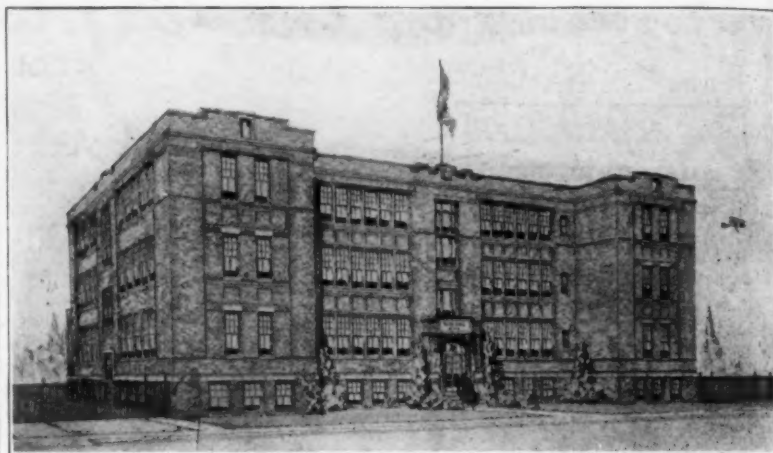
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Jos. W. Baker, Architect.

Conservation of fuel is the most important work of the American people. The problem of fuel saving is solved by the Board of Education of Harrison, N. J., by the use of the Peerless Unit System of Heating and Ventilating in the Hamilton Street School, Harrison, N. J.

Pure air and proper temperature conditions are prime essentials to student health and efficiency. The Peerless Unit System of Ventilating and Heating stands clearly alone as the means of meeting these requirements. The volume, temperature and condition of the pure, fresh air, cleansed of dust and healthfully humidified, positively supplied to each room, is made exactly right for that room independent of every other room and distributed thoroughly throughout the room without drafts.

Our Engineering force is at your service.

Peerless Unit Ventilation Co., Inc.

437-439 West 16th Street,

New York, N. Y.

Speakman Institutional Showers are Designed to Save Water—and the Cost of Heating Water.



Where scores or hundreds bathe, it is always desirable to limit the volume of water which may be used.

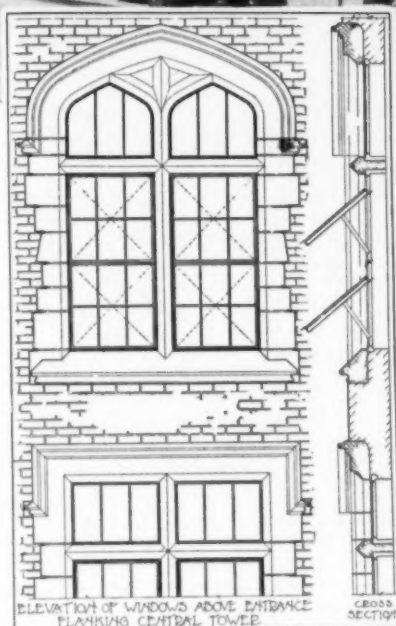
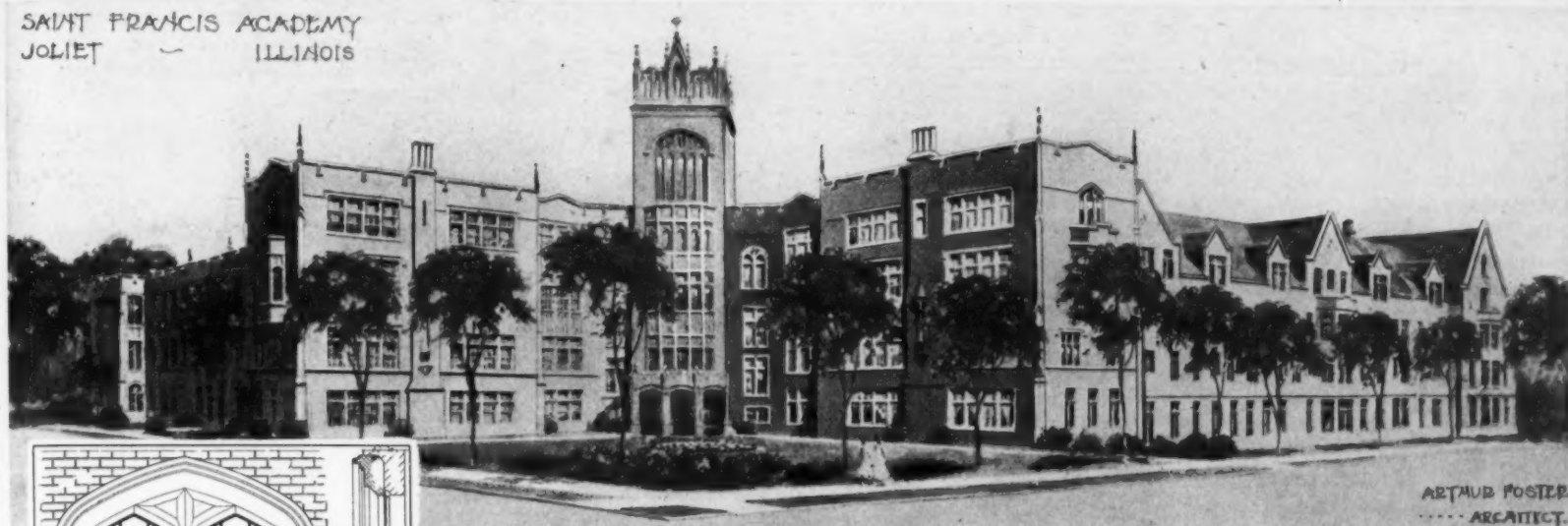
Now, six gallons per minute are really enough, provided all the water is showered on the bather.

Each hole in the Speakman Anyforce Shower Head is drilled separately and at an angle for just this purpose. And the Lock-Shield Controlling Stops of the Speakman H-895 Shower shown, allow the water to be cut down to the economy point.

We'll gladly send school boards, architects and individuals interested in showers any information which we may have bearing on their individual shower problem. We will also send a folder on this H-895 Institutional Shower.

Speakman Company
Wilmington, Delaware

SPEAKMAN SHOWERS

SAINT FRANCIS ACADEMY
JOLIET ILLINOIS

THIS is one of the most recent applications of Truscon Perfection Ventilator Windows in schools. Truscon Steel Windows offer unusual refinement in construction and design. There are a large variety of types that harmonize with practically every architectural treatment.

It is logical then that Truscon Windows daylight nearly two thousand school and university buildings in every part of the country. There are forty-three engineering and sales offices conveniently located in the principal cities to serve school officials and architects.

TRUSCON

STEEL WINDOWS

TRUSCON STEEL CO., Youngstown, O.
Largest manufacturers of permanent building products in the world.

THE MARCH OF PROGRESS AT DETROIT.

The Detroit, Mich., public schools report more than forty distinct items of progress undertaken during the year 1921-22 and in force in September, 1922. Following are a few selected because of their interest to school boards:

Twenty-three elementary buildings and additions with a total pupil capacity of 10,680 were put into operation.

Two new intermediate schools, the Barbour and the Hutchins, and additions to the Michael gave an added pupil capacity of 3,480.

The Southwestern high school, capacity 800, opened.

Two special units, an addition to the Leland school for cripples and the Maybee open air school were opened.

The 1922-23 budget was prepared in accordance with the accepted budget procedure. It was possible to review supply, equipment and personal service requests much more closely than heretofore because of tentative standards set up and supporting data accumulated during the last two years.

Standard lists of supplies for all activities with standard allowances for over 4,000 articles of supplies have been made.

Standard equipment lists have been formulated for the following types of rooms: administrative office, classrooms, kindergarten, library, science room, auditorium, domestic science, sewing room, gymnasium, rest room, manual training room, household mechanics and mechanical drawing.

A survey of the various agencies for transferring teachers in the elementary, intermediate and high schools, was completed. The responsibility for all such activities is now lodged in the hands of the Director of Probationary Teachers.

A plan was established whereby teachers may systematically contribute to the city-wide instructional activities of the schools. Teachers making such contributions are recognized by (a) such materials being used as evidences for promotion, (b) credit at Detroit Teachers College, (c) materials distributed over the contributor's name.

The supervisory group was further organized and consolidated by (a) the assignment of a director and assistant director of languages, including the departments of English, reading-kindergarten, penmanship, libraries, modern languages, and auditoriums, (b) the designation of definite responsibilities to each supervisor, (c) a careful and detailed analysis of supervisory activities, in order that time and effort may be saved at strategic points, and (d) an extension and consolidation of instructional activities in the intermediate and high schools.

Research studies made and published as research and special bulletins include the Age-grade and Nationality Survey, Flunkage Study, Analysis of the 1922-23 Budget, The Intermediate School in Detroit, Health of Teachers, and Pre-Medical Education in the United States.

The organization of Parent-Teacher Associations was definitely encouraged. In September, 1921, there were nine such organizations. In June there was a total of 54, including five in the high schools and two in the intermediate schools. Nine of these organizations have not yet affiliated with the national association but will do so next year.

Increasing interest was shown in the use of school buildings by outside organizations. The number of such requests granted was 893 in contrast to 385 in the previous year.

The annual nationality survey showed only 46.5% or 59,965 of the September, 1921, membership classified as Americans.

A second study of standards of growth of school children was undertaken, the results of which will be published at a later date.

The character of the engineering and janitorial forces has been raised. The working hours of the janitorial force have been readjusted and the cleaning is now done after school hours.

It was possible to pick all of the new elementary teachers for 1922-23 from the upper one-third of the state normal school June graduates by making an earlier selection than usual.

A remarkable interest in professional advancement has been shown by the Detroit teachers. During the year 65% of the elementary, 57% of the intermediate and 18% of the high

school teachers, took advance work at Teachers College. In addition to the teachers, administrative officers of the several divisions were registered as follows: elementary, 68%; intermediate, 50% and high school, 19%.

During the school year the psychological clinic examined all children entering the first grade, over-age and backward pupils in all elementary schools, pupils from certain grades who were candidates for special preparatory and special advanced classes, various groups of pupils in the intermediate and high schools for classification on the basis of mental ability, special groups in different elementary schools at the request of the principals or at the request of the supervisory departments for purposes of experiment, and new teachers and applicants for clerical positions, by the use of the group intelligence tests.

Important studies by the psychological clinic have been as follows: correlation of the Detroit First Grade Intelligence Test with mental age as established by the Stanford-Binet Test; relation between scores in the Detroit First Grade Test and the new Detroit Kindergarten Test; tabulation of data for the report on the "X Y Z" classification; the relation between scores in the group intelligence test and scholarship marks; relation between intelligence test scores and scores in educational measurement tests, and the results obtained by making definite use of intelligence test scores in the promotion of pupils and the organizing of groups in the Dwyer school.

The psychological clinic extended the participation in the use of the group intelligence tests throughout the schools by training teachers for this work, which hitherto has been restricted to members of the clinic staff. The training is provided by evening courses in the Detroit Teachers College.

In the territory of each district principal a regular room for some class belonging to the Department of Special Education has been designated as a clearing room for schools in that district. Principals may transfer disciplinary cases to clearing rooms at any time and avoid the delay necessary in arranging an examination at the psychological clinic. These rooms are visited weekly by an examiner.

Salaries of School Board Secretaries

Bertha Y. Hebb, Washington, D. C.

From a financial standpoint the position, "business manager" or "secretary of the school board," is one which ranks well with those of some of the higher paid city school officials. As may be seen upon the table presented below, based on 1921 statistics, the salary of the business manager, or the secretary of the school board, in many cities even exceeds that of the assistant superintendent of schools. Notably, in this regard, may be mentioned the cities of Chicago, Ill.; Milwaukee, Wis., and Philadelphia, Pa., which pay such officials the munificent salaries of \$10,000, \$7,200, and \$6,500 a year, respectively. Other cities where this custom prevails are Des Moines, Iowa; Indianapolis, Ind.; New Orleans, La.; Salt Lake City, Utah; San Antonio, Texas; and Youngstown, Ohio.

The following table contains the salaries of business managers, or secretaries of school boards, in 32 cities, together with the salaries, where available, of superintendents and assistant superintendents of schools, and of the superintendent of buildings.

NOTE—In this tabulation the author of the article has omitted several cities that employ both a business manager and a secretary. The city of Boston pays the business manager \$4,740; the secretary of board, \$4,740, the same salary; Los Angeles, business manager, \$5,000; secretary, \$3,900; Pittsburgh, Pa., business manager, \$6,000; secretary, \$5,000, and so on.

The following table covering 45 cities of 100,000 population and over was compiled by the United States Bureau of Education, and issued April, 1921:

	Minimum	Lower quartile	Median	Upper quartile	Maximum
Superintendent of schools.....	\$4000	\$5800	\$6240	\$9000	\$12000
Assistant, associate, or deputy superintendent..	2100	4000	4600	5500	8250
Superintendent of buildings.....	1782	2500	3020	4200	11000
Business manager	2400	3600	4500	5200	10000
Secretary or clerk to board of education.....	1800	2450	3000	3775	6000
Supervisors:					
Drawing	1700	2300	2750	3500	5500
Music	1700	2388	2700	3500	5500
Penmanship	1250	2050	2420	2900	4000
Kindergarten	1750	2125	2500	3410	5000
Primary	2050	2200	2500	2900	3700
Home economics	1500	2000	2250	2500	5000
Manual training	1900	2500	2975	3750	5000
Physical education	1500	2500	2775	3800	5500
Health	1150	2500	3558	4510	5500
Special classes	1800	2100	2500	3400	5000
Director, educational measurements and research	1320	2300	3600	4300	7000
Chief attendance officer or director of attendance	1000	1600	2050	3400	7700
Attendance officers	550	1600	1820	3240	3000
Clerks of all ranks and stenographers.....	420	1080	1440	1740	4500

How to make Teachers' Meetings More Worth While

(Concluded from Page 62)

reading and report on these at the teachers' meeting. This is one of the most important committees, because some of the most valuable contributions to educational progress are to be found in our school journals. Our busy schoolmen, many of them, have not time to write books, but some of them do get time to dash off a short article now and then for a school journal. All of our teachers take several journals, but they usually prefer the Saturday Evening Post after a hard day's teaching, so unless these articles are brought forcibly to their attention the teachers are likely to miss many of them.

The committee entitled Our Neighbors has for its work the collection of the various new methods worked out by other schools. Nearly every school system is doing something that is different. It is well for all of us to keep our eyes on these experiments. When teachers have a visiting day it is their tendency to say, "We

are doing better work than they. I wish they could see our school," etc. Most teachers thus focus their minds in trying to find the weak points of the systems they visit, rather than on looking for strong points. This committee must be on the look out for the "high spots," in neighboring schools as well as for experiments that these schools are carrying on.

Other committees may well be added to the list. Such committees may include groups on New Types of Schools, Summer Schools, Best Standard Tests, etc. The number of committees has to be limited according to the number of teachers in the system and the number of meetings held throughout the year. Too many committees will mean too many committee reports. Also there is danger of trying to cover so much ground that the teachers will not cover any part of it thoroughly.

Another important thing that should be done

in teachers' meetings is to conduct an investigation of the so-called standard tests. This could well take up a year of work for any school system. We have many standardized tests now and a large number of them are very poor. The task for schoolmen now is to select the good from the worthless, and in order to do this, careful experiments and investigations are necessary. The whole teaching force should take an interest. In this connection it is well, if a school system is large, to work up some tests of its own, so long as these tests are not printed and placed on the market before they have been thoroughly developed. Standardized tests are here to stay and will always form an important part of every good school system, but we know that they have been terribly misused and have been a source of much waste of time.

One of the ways in which a superintendent can contribute his part toward making teachers' meetings attractive is by keeping a file of the very best achievements of his teachers. These especially fine things should be brought to the attention of the whole teaching body. By so doing the superintendent encourages excellent work and gets much farther than he does by talking about the poor work that is being done. We all like praise and we all like recognition of our efforts. The wise superintendent will show his teachers that he has his eyes open to the good work they are doing and will say something at every meeting about some fine piece of work which is being done by one of his teachers.

Every teacher should be carrying out some original investigation on his own initiative. This investigation should be similar to the work done in preparing a thesis. There is a great field in most any branch of school work. The teacher should think of himself as preparing to write a book. He probably will never write the book, but he should keep the product of his investigations in a notebook and should work ahead as if he intended to publish the material. By so doing the teacher will keep more alive and will be a better teacher. The teachers should report on these investigations in the teachers' meetings. These reports add greatly to the meetings, because each teacher is doing something different, and naturally there is room for a good many surprises.

QUESTIONS AND ANSWERS.

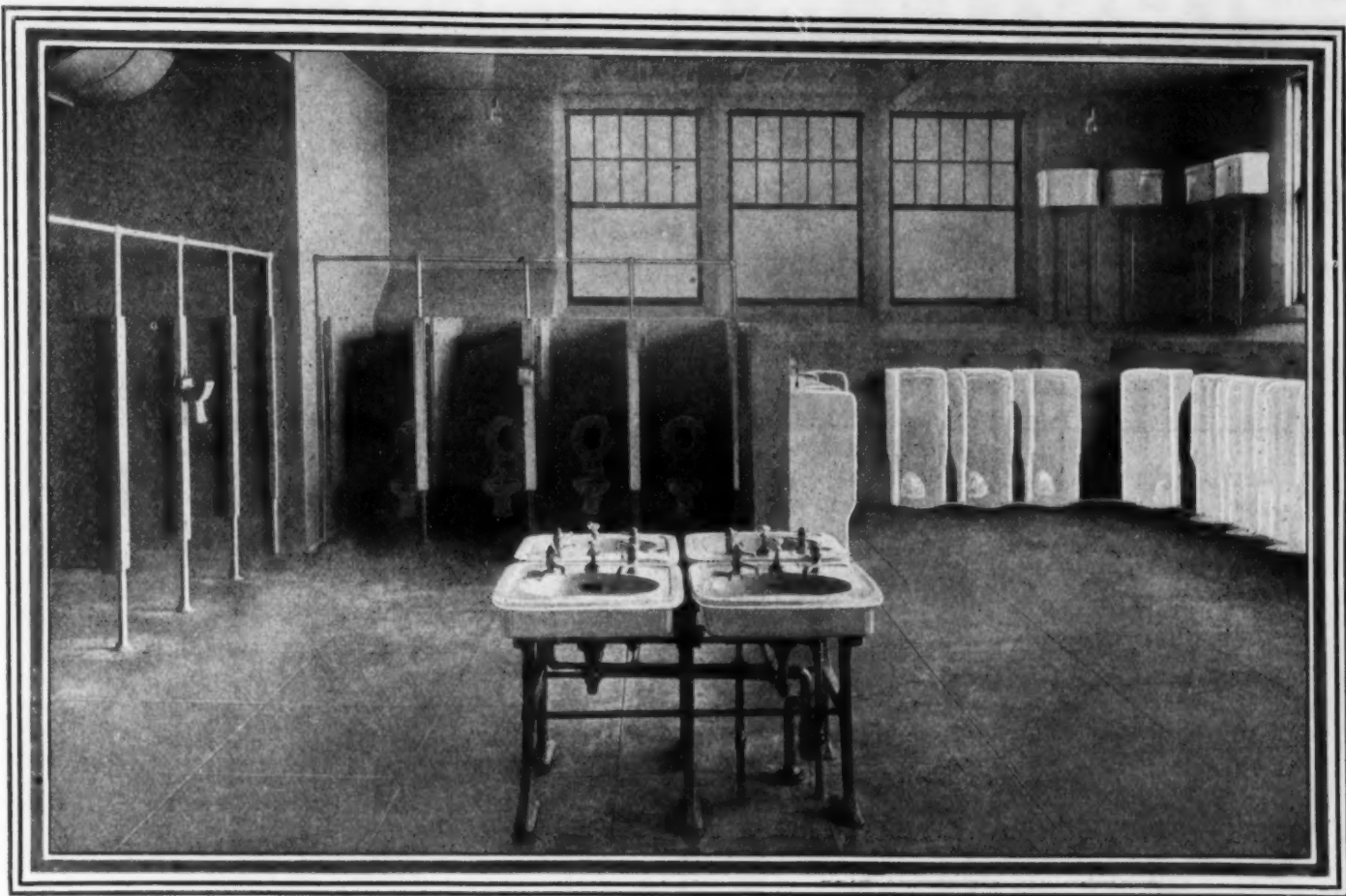
The Effects of Chalk Dust.

Question: I would like to know whether chalk dust inhaled for hours at a time, day after day, has any effect on the lungs or health of school children where the blackboard is extensively used, and in what way and to what extent, if known; also, whether that effect is upon the lung tissue or on the general health, and whether it is serious or whether such inhalation is beneficial or detrimental, if such is known one way or the other.—W. A. Waterbury.

Answer: The most practical way to arrive at your information will be to read page 175 of "School Janitors" by Helen C. Putnam, A. B. M. D.; "Health Work in the Schools" by Ernest Bryant Hoag, M. D., pages 210 and 211; "School Hygiene" by Fletcher B. Dresslar, Ph. D., page 47; "Healthful Schools" by May Ayres, page 55 and 56. These texts deal with the dangers of chalk dust and suggest the remedy through devices, ventilation, etc.

We know of no experiments on the immediate or general effects of chalk dust upon the lungs of children. The editor of this publication some years ago made an exhaustive study of school-room dust, had cultures made of the germs, and thus established the dangers of street dirt in the classroom. But, the dangers of chalk dust have been established more largely through the results experienced in industries where mineral dust is prevalent.

The conclusion has been that the daily inhalation of mineral dust, as observed in industries, has the tendency to cause pulmonary troubles and to shorten life. Further, that the children are less able to withstand the evil effects of dust inhalation than adults, and that delicate children may be seriously affected by the prevalence of chalk dust in classrooms.—Editor.



BOYS' TOILET ROOM, SHATTUCK SCHOOL, PORTLAND, OREGON. A TYPICAL INSTALLATION OF CRANE EQUIPMENT

BUILDING CHARACTER BY ENVIRONMENT

Wholesome habits and even temperaments are cultivated where the environment is planned with thoughtful consideration for good taste and comfort. The sanitation appointments of a school should reflect this atmosphere through neat appearance and cleanliness. Thorough maintenance of sanitation is easy

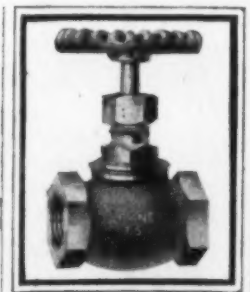
with installations of Crane lavatories, showers and toilet fixtures because of their perfection of design and accurate construction from suitable materials. Crane valves and fittings for the pipe lines serving the sanitation fixtures match, in built-in endurance, the high quality and visible beauty of Crane fixtures.

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GENERAL OFFICES: CRANE BUILDING, 836 S. MICHIGAN AVE., CHICAGO

*Branches and Sales Offices in One Hundred and Thirty-five Cities
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Crane 75 Low Pressure Globe Valve

LAPIDOLITH

TRADE MARK

Makes Concrete Floors Dustproof and Wearproof

Just flush it on!

The concrete dust which is ground up from the untreated floors of your school house is injurious to pupils and to their clothing and desks.

Lapidolith makes concrete granite-hard by chemical action and so stops dusting and wear. It makes toilet floors non-absorbent and therefore easily washed and odorless.

Over 250,000,000 square feet of concrete have been lapidolized.

We list a few leading schools and colleges where Lapidolith has been used:

The Steele School, Harrisburg, Pa.
Yale College, New Haven, Conn.
Cornell University, Ithaca, N. Y.
Board of Education, Kansas City, Kan.
High School, Los Angeles, Cal.

and other schools and colleges in every state.

Write for testimonials, also free sample and literature.
Dept. 22.

L. SONNEBORN SONS, INC.
116 Fifth Avenue, New York

Also manufacturers of Cemcoat, the washable wall coating for schools

(SONNEBORN PRODUCTS)

For Ceilings, Walls and Floors of Schools and Colleges.

Cemcoat

the sanitary, light-reflecting wall coating for halls, toilets and recreation rooms. Gloss finish. Easily kept clean of dirt and ink spots, washing with soap and water does not affect Cemcoat. White or colors.

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especially adapted for classrooms because its velvety finish reflects light without glare. Washable — easy to keep clean from dirt and hand spots.

LIGNOPHOL
FOR WOODEN FLOORS

the modern hardener gives new life to old or new wooden floors. It prevents splintering, wear and dusting and gives a smooth, sanitary and decorative surface.

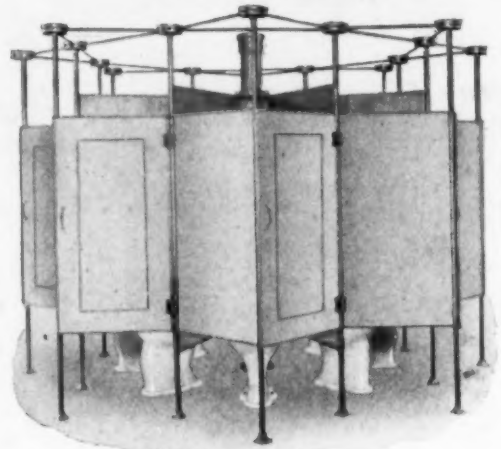
Write for full information
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The Kelly Octopus Water Closet Combination For Schools



8 Water Closets in small space.
Stands out free from Walls.
Does not intercept Light or Air.
Can be installed in Half the Space, in Half the Time,
and at Half the Cost of others.
The large Octopus One Piece Drainage Fitting, not shown, is included with each Combination.
Hundreds in use.

Details on request.

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PALMER'S PAPER and SOAP FIXTURES For Every School Requirement



Economy Paper Fixtures
(For Towels and Toilet Paper)

Provide an economical paper service with ordinary roll towels or toilet paper. Lock prevents removal of roll until entirely used; and Tension Device permits tearing off but one or two sheets at a time.

These Patented Paper Saving Features quickly offset the original cost of the fixtures.

Non-Breakable

Liquid Soap Dispensers

Are particularly desirable for schools, as they eliminate the breakage of glass globes.

These fixtures are equipped with patented non-leakable valves; and also have a lock preventing tampering with the soap.

Made in two sizes, of one-piece aluminum casting, with nicked brass valve.

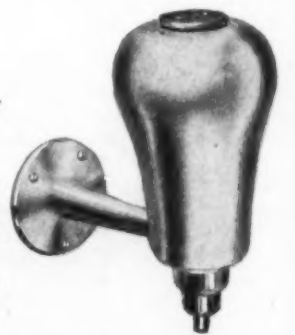
We also manufacture a Gravity Tank System.

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PAPER FIXTURES

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SOAP FIXTURES

Manufacturers for the Jobber.
Milwaukee, Wis.



DURAND STEEL LOCKERS—

Durand Steel Lockers do not have to be buried in the basement or hidden in dark hallways; they are an ornament to any part of the school. They are quiet, distinctive; their quality is apparent to the eye.

Rows of Durand Steel Lockers, simple and dignified in exterior, accurate in alignment, bespeak order, efficiency and cleanliness. They are a constant source of pride and satisfaction to pupils, parents and school officials.

Send for catalogs of lockers or shelving. Consult with us regarding specifications, prices, etc.

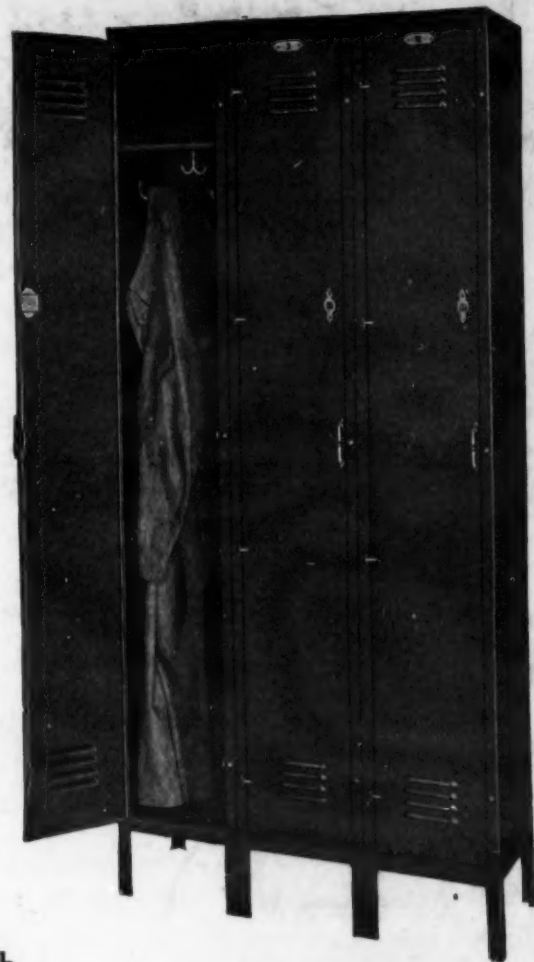
DURAND STEEL LOCKER COMPANY

1521 Ft. Dearborn Bank Bldg., Chicago

1821 Park Row Bldg., New York City

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2421 1st National Bank Bldg., Pittsburgh



DEFINING STATUS OF SUPERINTENDENT.

The Trenton, N. J., School Board, during the present year adopted the following regulations defining the duties and powers of the superintendent:

1. The superintendent of schools shall be the chief executive officer of the board of education, and under its direction he shall attend all meetings of the board, and be granted the privileges of taking part in its deliberations.

2. He shall be responsible to the board of education for the efficient operation of all school functions of the board of education and shall prepare or cause to be prepared all blanks and forms for the proper carrying on of all work of the board.

3. Recommendations of the superintendent of schools covering all phases of school work shall be made direct to the board of education at its regular or special meetings.

4. He shall prepare and submit to the board of education rules and regulations covering all departments and employees.

5. He shall on or before the first meeting in February of each year prepare and submit to the board of education the annual budget.

6. All communications or reports to the board or to any committee of the board from principals, supervisors, and teachers, and other employees shall be submitted through the superintendent of schools. All such communications or reports shall be referred to the board at the next regular meeting. Nothing in this paragraph shall, however, be construed as denying the right of any such employee of the school system to appeal to the board.

7. The superintendent of schools shall recom-

mend for appointment directors, supervisors, principals, teachers and any other employees of the board of education.

8. He shall, with the cooperation of directors and supervisors, principals and teachers, recommend types of study and time schedules for all departments, and supervise their operation, and he shall submit to the board of education for approval, such types of instruction and time schedules as may seem necessary. He shall submit a report to the board at least once a month, with such recommendations as may be deemed requisite, and shall send a written copy of this report to each member of the board at least forty-eight hours before the time of meeting. He shall prepare a general report on the general condition of the public schools at the close of the school year. He shall prepare and submit to the board any special report which may be required or deemed expedient.

9. He shall attend to all other necessary matters of administration, and shall faithfully perform all such other duties required of him by the board of education.

REMARKABLE SCHOOLHOUSE PRO-GRAMS.

In accordance with a recent survey made on the schoolhouse projects of the South, the following interesting figures are presented:

Schools Under Construction, Sept. 1921—
June 1922.

State	Number of Buildings	Total Cost
Alabama	38	\$ 3,144,750
Arkansas	9	307,500
Georgia	41	9,968,715
Florida	35	2,966,400
Washington, D. C.	13	4,608,429
Kentucky	36	2,773,711
Louisiana	37	3,836,690
Maryland	24	9,216,000
Mississippi	29	1,726,300
Missouri	60	10,141,800
North Carolina	107	11,998,453
Oklahoma	40	5,362,480
South Carolina	47	2,138,730
Tennessee	49	3,349,632
Texas	113	10,016,450
Virginia	48	4,124,837

West Virginia	40	2,815,400
Total	766	\$88,496,277

NUMBER AND PAR VALUE OF SCHOOL BOND ISSUES SOLD IN SOUTH FOR FIRST SIX MONTHS OF 1922

State	Number	Value
Alabama	6	\$ 1,065,000
Arkansas	8	318,000
Florida	13	1,347,000
Georgia	11	4,863,500
Kentucky	8	1,331,500
Louisiana	15	1,838,000
Maryland	5	518,000
Mississippi	12	484,000
Missouri	13	2,340,600
North Carolina	46	9,558,000
Oklahoma	12	1,807,000
South Carolina	13	1,351,000
Tennessee	13	1,320,000
Texas	58	4,833,500
Virginia	7	637,000
West Virginia	6	438,000

Total	246	\$34,050,100
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A MONSTER SCHOOL BUDGET.

—The largest school budget in the history of the New York City schools is now under consideration by the board of estimates.

The total estimate of the cost of instruction and operation during 1923 is \$95,112,766.99. Of this amount \$18,903,192.10 is estimated as available from state funds, and the remaining \$76,209,574.89 is requested from the city authorities. This is approximately \$4,839,000 more than the allowances for the current year.

In addition to this amount, somewhat more than \$8,000,000 is requested for the redemption of special revenue bonds, authorized at various times since August 31, 1921, to meet deficiencies in the budgets allowed for 1921 and 1922. In other words, the schools still reaping the fruits of the neglect of the city authorities in 1920, when \$27,000,000 was cut from the school budget, and revenue bonds had to be issued to keep the schools open during the latter part of 1921.

The budget estimate also includes nearly \$502,000 for the teachers' retirement system,



Twenty children lost their lives when fire destroyed this Peabody, Mass., School.

FAITH OR CERTAINTY

The Delusion of Fire Escapes (Facts not Theories) as prepared by the National Fire Protection Association. The fire prevention experts know that the majority of all outside iron fire escapes are useless during fires. They know that the average fire "escape" cannot save life except by mere "good fortune."

Standard Gravity Spiral Slide Fire Escapes afford a safe, rapid, pleasant passage from the top floor of a building to the ground.

Under an official test it was demonstrated that 90 children a minute could descend safely from a three story school building. All that is necessary is to sit down and slide and the brief journey is made inside the protection of a 33" steel guard.

"Write for F. E. Catalog."

STANDARD

CONVEYOR COMPANY

NORTH ST. PAUL, MINN.

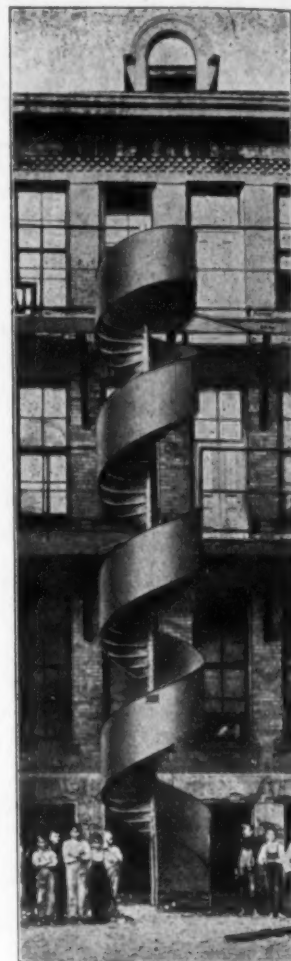
NEW YORK,
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Representatives in all principal cities.



A Standard Spiral Fire Escape provides safety to the children in this building.

\$190,000 for special claims of various sorts and over \$64,000,000 for the acquisition of sites and the construction of buildings. These items however, will be discussed in a later article. This article will deal only with the \$95,112,766.99 requested for instruction and operation during the coming year.

The largest part of this latter sum constitutes the "general fund", totalling \$79,310,375.81, which covers the salaries of the teaching and supervisory staffs, including attendance officers. The remaining \$15,802,391.18 constitutes the "special fund", which includes \$5,490,336.76 for the salaries of certain administrative staffs, such as the building and supply departments, and janitors, and \$10,312,054.43 for all other necessary expenditures, such as the purchase of fuel, supplies, textbooks, school apparatus, furniture, fixtures, etc., and the repair of school buildings.

Pittsburgh's Ten Year Record.

During the past ten years the Pittsburgh, Pa., board of education expended for land, new buildings and equipment \$7,115,914. It also expended \$2,923,065 to make older buildings safe and sanitary and paid \$8,597,632 for the redemption of bonds and their accumulated interest.

In addition to these expenditures for betterments there has been paid a total of \$31,995,123.87 for teachers' salaries during the ten years. Of this amount \$2,305,707.47 has been paid in compliance with the teachers' salary increases made by legislative enactment.

During the period named the board placed its finances upon a sound basis:

First—Established a system of depositories for its funds, providing for (a) absolute security, (b) maximum rate of interest, (c) fairness in the distribution and handling of its funds.

Second—Conducted an audit of the complicated affairs of the old districts.

Third—Established proper bond and sinking fund records.

Fourth—Installed system of accounts in accordance with the most modern and reliable business standards.

Fifth—Adopted and operated a modern budget system.

The Most Expensive High School.

The high school at Hibbing, Minn., a mining district, is nearing completion. It is described as the country's largest and most expensive high school building. It will house 3,500 students, and will cost, when completed, the sum of \$3,500,000.

The building is located on a ten-acre plot of land. It has 80 classrooms and an auditorium with a seating capacity of 2,500, two gymnasiums, a swimming pool, large library, and study hall, forge shop, machine shop, laundry, automobile and gas engine repair shops, pattern-making and woodworking shop, sewing, cooking and millinery departments, and an open-air room for anemic children. The building has a 400-foot frontage and three large wings in the rear.

WAY UP IN NOVA SCOTIA.

The school board at Bridgewater, Nova Scotia, has its trials and struggles, its disappointments and its successes, the same as experienced in the states, with the result that the youth is receiving the blessings of an education.

Nine years ago there were five buildings, all small but one. At a cost of \$50,000 a new eight room building, providing an assembly hall seating 500, domestic science and manual training rooms, was erected. But, when the congestion again manifested itself and another \$50,000 was required for additional building the bond issue vote failed. This involved not only rigid economy in providing the most essential things but forced the dropping of most desirable work.

The present enrollment consists of 696 pupils. There are fifteen teachers under the direction of a principal who must, in addition to his supervisory labors, teach three grades in the high school. His salary is \$1,900, of which \$245 comes from the provincial government as a grant.

The pressure of the moment is a new school-house and while the school board is anxious to provide the same, the taxpayers, led by a few ultra-conservatives, are opposed. The board consists of five members, three from the town council and two appointed by the Lieutenant Governor. Every year shows some changes in the school board membership.

The extra moneys which the board receives are derived from three concerts given during the year by the pupils and teachers. They are spent on the library, equipment, sports such as baseball, hockey, basketball, volley ball, etc. This year Bridgewater carried off the provincial high school championship in baseball.

Bridgewater is the seat of the County Exhibition which maintains a Rural Science Building and in which the work of the schools of the county is exhibited. These exhibits include drawing, writing, raffia work, vegetable, candy, cake, domestic science, manual training, etc.

A presentation of prizes takes place here in the fall covering the work of the previous term which ends June 30th. This year \$200 was distributed over all the grades from XI to I. But this, as well as other activities, are largely up to the principal who has to be up and doing. If he does nothing then the school remains dead to the neck and simply does nothing but the routine work covered by the course of study.

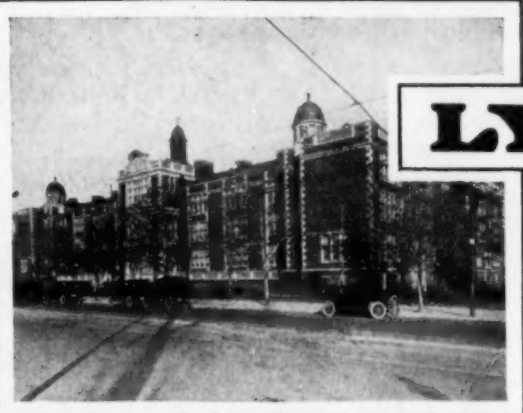
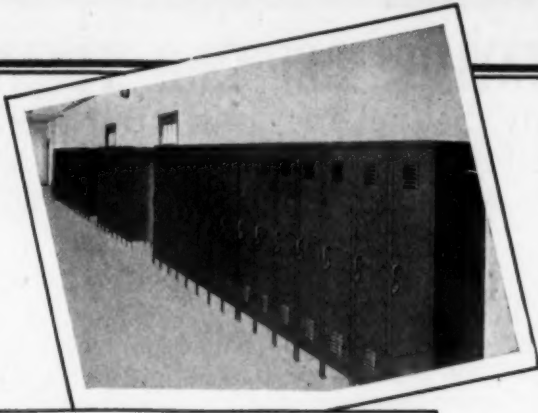
Bridgewater has a most beautiful playground surrounded with pines, maples and birch trees, and if it were properly equipped would be the finest in the Dominion. But, the conservative spirit frowns upon it and deems it "all foolishness." The grounds however, are equipped with some paraphernalia and slowly and steadily the necessary equipment will be secured.

AMONG BOARDS OF EDUCATION.

—President Ryan of the New York board of education is not so much concerned with the college degrees of applicants for the position of assistant superintendent of schools as he is in their conceptions of educational needs. He asks the applicants to state "what forward steps he or she has taken in the district and what steps he or she thinks the city should take."

—Following a plan of organization adopted last year by the school board of Wilmington, Del., Robert G. Bruce was made business manager near the end of last year. The plan adopted by the board of education placed the appointive power in the hands of the superintendent, and made all the appointive officers, business and professional, directly responsible to the superintendent. The superintendent is held responsible to the board of education.

(Continued on Page 113)



LYON



SOLDAN HIGH SCHOOL, ST. LOUIS MO.
WM. B. ITTNER, ARCHITECT, ST. LOUIS MO.

MOREY, JR. HIGH SCHOOL, DENVER, COLO.
W. E. AND A. A. FISHER, ARCHITECTS, DENVER, COLO.

WHERE EQUIPMENT OF QUALITY IS DESIRED. WHERE DETAILS OF CONSTRUCTION AND ARRANGEMENT DEMAND AN ORGANIZATION OF EXPERIENCE AND CAPABILITY. WHERE A UNIFORM AND SATISFACTORY INSTALLATION IS ESSENTIAL.

LYON METALLIC MANUFACTURING COMPANY
AURORA, ILLINOIS

(Continued from Page 110)

—Wheeling, W. Va. Next year the local school board will consist of five members, elected at large, on a non-partisan ticket. For the past 50 years the school board has been composed of 21 members.

—A department of placement and research has been established by the Rock Springs, Wyo. school system.

—Trustee J. G. Robson of New Westminster, B. C., Canada, has donated a silver cup to be awarded to the school which, after inspection by a special committee, has the best record for tidiness, and cleanliness in classroom, school and grounds, lavatories and pupils, own appearance. The idea is to inculcate in the minds of pupils in early life the need for care of public property. The cup will be awarded semi-annually and good results are hopefully looked for from trustee Robson's generous offer.

—The school board of Mt. Summit, special school district No. 8, near Cherry Grove, Ohio, consisting of five members, sent its resignation to the county superintendent because it proved impossible to make the revenues keep pace with the school needs. Under the law a board of education is required to provide an education for all children in its district up to 16 years of age, and in rural districts to pay the tuition and transportation of all pupils who desire a high school education. Doubling of school expenses has resulted, while the income from taxation has remained the same.

—Denver, Colo. The school board has taken steps toward the erection of an administration building, to be located on the northwest corner of Fourteenth and Tremont Streets. The building will have a frontage of 125 feet on both streets and will be two stories high, with provisions for another story whenever the demand arises. The cost of the structure will be about \$100,000. The decision to build has been forced on the board by the high rents which have been paid for the present location.

—New Haven, Conn. The school board is considering the division of the second year of the school year into three terms instead of two, with the Easter vacation between as at present. Under the new plan the first term would begin

Jan. 2, and end Feb. 23; second term March 5 to April 27 and third term, May 7 to June 28. The week of Feb. 26 and April 31 would be vacation week. Under either plan the school days would number 114.

Supt. Beede says the new plan is in use in several cities of the country. In his opinion there is something to be gained under each plan. He says the new plan would bring the close of school late in June and possibly in quite hot weather.

—Joplin, Mo. The board has appointed a special committee to adjust the teachers' salaries on the basis of standard qualifications. It is believed the salaries of some teachers are too high, while others are too low.

A COUNTRY EDITOR ON COUNTRY SCHOOLS.

And What He Thinks of the State Superintendent.

In a state located somewhere between the East and the West the editor of a country newspaper recently gave vent to his views, his feelings and his ideals in the following terse and picturesque style:

"The state superintendent of public instruction has sent us a circular, which is being broadcasted over the state, in which he announces that he is going to insist on better sanitary regulations for the country schools. He has formed a good resolution, and if he really carries it out he will deserve great credit for his work.

Most public officials are bluffers and four-flushers, however, and only a precious few deliver the goods.

They are like our county officials, hang around where there's free beer and mooch like an old sponger and free-lunch grabber.

They are like our board of health: announce early in the spring of the year, for electioneering purposes, how they are going to make the city sanitary and keep it clean, and let that be the last of it, and crawl into their holes when the weeds begin to spread their envenomed pollen; when the creek begins to stink, and when the mosquito pests begin to buzz and bizzle and zip and spread the poisonous germs of malarial fever among the people.

The Rural Schoolhouse.

The average country schoolhouse is a disgrace to the country.

To begin with, it is built too small, considering the number of human beings that congregate within its four bare walls every day during the school term, to be healthy or sanitary.

As a rule, it is the center of a little weed patch which is eliminated by the winter when it arrives.

The toilet facilities are a crime.

Some directors are putting in modern heating and ventilation, and they deserve great credit for that, and we certainly would not withhold credit where credit is due, honor where honor is due.

We try to be absolutely fair and just in all of our statements and conclusions.

We see country schoolhouses labeled "Standard School," which ought to be burned down without a moment's hesitation and in the name of mercy, for the benefit of both the children and the people.

At few country schoolhouses is there safe drinking water, accessible and available.

What there is wriggles with typhoid germs.

Corporal Punishment Obsolete.

Country children are at a stupendous disadvantage as compared with the more fortunate city children, when it comes to matters pertaining to their education.

Corporal punishment is still in vogue in some of the country schools, which is not only an outrage against humanity and decency and fair-play, but a violation of the Statute Law.

No school teacher has a legal right to whip a child, and no school teacher has a moral right to keep children in school for punishment after four o'clock or after the regular school hours.

There are some forms of school punishment which are more humiliating and debasing and injurious to the pupils, than whipping, and teachers who inflict them are either ignoramuses or brutes, or both combined in one.

We are sometimes surprised to note how far we are behind the times and how little we have progressed in matters of education, particularly as applied to the country schools.

3 BIG REASONS FOR BUYING HALSEY TAYLOR DRINKING FOUNTAINS

Halsey Taylor Drinking Fountains have many distinct features. But the 3 features described here have made Halsey Taylor fountains the first choice wherever the proper consideration has been given to the subject of fountains for factory, municipal or school use.

No. 1. The Perfect Drinking Stream.

The 2 stream side jet projector is found only in Halsey Taylor fountains. Two streams of water, rising from the side at an angle, converge as they rise, setting up a mechanical interference in the stream that retards the movement of the water at the apex of the arc. A convenient drinking mound is thus formed, from which drinking is comfortable and convenient. Saliva cannot come in contact with the source of the stream. Perfect sanitation is assured. That's why the Government standardized on them during the war.



No. 605 Vitreous China
Wall Type Fountain

Compare these features with other fountains. You'll not find them elsewhere. These three dominant advantages alone are worth your most careful consideration.

Write for complete details.

THE HALSEY W. TAYLOR CO.,
540 North Park Ave.,
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*The Fountain With the
Perfect Drinking Stream
and Automatic Stream Control*

No. 2. Automatic Control.

With the Halsey Taylor automatic stream control the stream is always constant—never too high—never too low. You'll not find stagnant, germ breeding pools around a Halsey Taylor fountain.

No. 3. Non-squirting Projector.

The source of the stream is guarded. Tampering, such as squirting water with the fingers, is impossible, yet the guarded device is sufficiently open to be thoroughly clean and sanitary.

*Note the perfect drinking
stream—never too high—
never too low.*



Views About the Superintendent.

We sometimes wonder whether the same men are still filling the job of school director, notwithstanding their antiquity and superannuation.

We hope, for the sake of the country and for the sake of the schools and the children, that the state superintendent will make some headway in his latest move.

We really believe that it is his first move.

We have never heard that he ever made any move at all, before.

He is a good pay-roller, and hangs onto his job with commendable persistence.

He is a good fellow at that, dresses the part of a professor and talks well before a woman's club.

We always felt like congratulating him on his smooth ways and suave manners.

He must have been a regular dude when he was a kid."

A PLAN FOR GRADING PUPILS.

Superintendent C. R. Gates has issued the following instructions for grading children in the elementary schools and for providing a measure of uniformity and justice in the several schools and grades of the Grand Island (Neb.) schools.

The report cards will be graded this year on a five point scale, using the normal distribution curve as the basis. Scientific study of teachers' marks indicates that actual grade distributions run parallel to the theoretical curve. The only difference is a slight skewing to the right. Not quite as many "4's" are assigned, and very slightly more "5's" and "1's" are assigned than the theoretical distribution would demand.

If the base line of the probability curve is divided into five equal divisions then the area above the various divisions would comprise the following percentages of the total area:

1, Excellent,	or 93-100	..... 7%
2, Good,	or 85-92	..... 24%
3, Fair,	or 77-84	..... 38%
4, Poor,	or 70-76	..... 24%
5, Failure,	or 0-69	..... 7%

In grading pupils teachers should arrange their classes in order of excellence. If it is a normal class approximately 7 per cent of the group should be graded "1". Approximately 24

per cent should be given a grade of "2", the next 38 per cent a grade of "3", the next 24 per cent a grade of "4", and there may probably be 7 per cent of the class "Failures", or "5".

This does not mean that these limits are to be slavishly followed. Teachers are expected to use common sense in handling this. If there were 29 pupils in a class they would be distributed approximately as follows: Two of them would receive a grade of "1", seven a grade of "2", eleven a grade of "3", seven a grade of "4", and two a grade of "5".

In order that there may be some uniformity of grading, the following is a tentative statement of the standards to be kept in mind.

For a Grade of Five.

Probably not more than 7 or 8 per cent in any normal class would fall within this group. This is the group who have failed and whose grade under the percentage system would have been 69 per cent or less. A grade of "5" meant the failure of a pupil to participate effectively in recitation, inability to comprehend the subject-matter, failure to do the required minimum of exercises, problems, written lessons, etc.

For a Grade of Four.

About 24 per cent of a normal class group would be included in this grade. Under the traditional grading system the percentage values would be from 70 to 76 per cent. A grade of "4" means that a pupil takes a somewhat active part in the daily recitation, hands to the instructor all required written work such as exercises, problems, themes, tests and maps. Gives good attention and is steadily employed during the class hour. The pupil would show little or no initiative in attacking new work and would need much help from the teacher.

For a Grade of Three.

About 38 per cent of a normal class would fall in this group. Under the percentage scheme the range would be from 77 to 84 per cent. For a grade of "3" a pupil must show, in addition to the items required for a grade of "4", more initiative in attacking any work, must keep his work organized, must review what has been learned, and by paying careful attention to the assignment, get the advanced work without more than average help from the teacher.

For a Grade of Two.

Approximately 24 per cent of a normal class would be here included. The percentage range is from 85 to 92 per cent. Pupils receiving a grade of "2" must show marked initiative in preparation of their work, and in every particular the quality of their work must be superior to the quality for the grade of "3". It requires daily preparation of assignment, recitations well made, work constantly up to date with but little urging and little help from the teacher.

For a Grade of One.

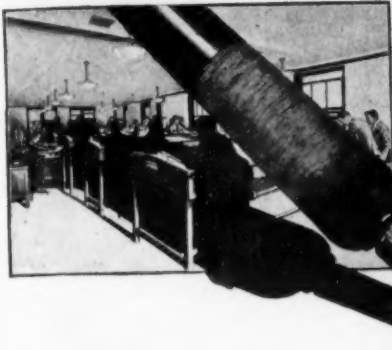
Approximately seven per cent of a normal class would be in this group with the percentage range from 93 to 100 per cent. In addition to the items required for a grade of "2", pupils should do individual work and independent thinking, and the quality should be superior in every way. Accuracy, legibility, neatness, correct spelling, clear thinking should be distinguishing characteristics.

What the Manitoba Teachers Stand For.

—The Manitoba, Canada, Teachers Federation stands for the following fourteen points:

1. 100 per cent efficiency of our educational system.
2. Recognition of the professional status of teachers.
3. Increased representation of the profession upon bodies that determine educational policy.
4. A thorough training for all future entrants to the profession, and the provision of adequate facilities for training.
5. Rigid professional etiquette and a high esprit-de corps.
6. Right of teachers to negotiate through their representatives with school boards.
7. Adequate salaries.
8. Adoption of salary schedules by all school boards.
9. Reasonable security of tenure.
10. An adequate pension scheme.
11. A strong Canadian Teachers' Federation.
12. Cooperation with all other bodies engaged in educational work.
13. The preservation and extension of democracy.
14. Education for complete living.

THE NEW WAY



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Business executives are demanding machine trained operators in their bookkeeping departments. It is to fill this need and to keep step with the rapid changes in business methods that the Underwood Typewriter Co., Inc., is introducing in schools throughout the country the use of up to-date equipment in their bookkeeping departments.

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DUTIES OF THE SCHOOL NURSE.

"It has been said that poets are born, not made. So it is with the most successful school nurse. Unless she has the background of a sound heredity, is tactful and of equable temperament, is herself in good health, and is imbued with a love and understanding of children, her work will be more difficult and less fruitful of results than otherwise would be the case."

The foregoing paragraph is in part the introductory to a study on the school nurse, her duties and responsibilities, as made by Taliaferro Clark, surgeon of the U. S. Public Health Service. We quote from that study the following:

The duties that may be expected of a school nurse will vary according to whether no school physician is employed, a physician is employed on full-time or part-time basis, and whether her work is in a rural or urban school.

A. When a Full-time Physician is Employed.

In schools where a physician is employed on full-time basis the nurse's work should supplement that of the school physician and correlate with it. The school nurse should be directly responsible to the school physician for the proper discharge of her duties, which may be for routine or special work.

1. **Routine duties.** In any circumstances there are certain duties required of school nurses in general, irrespective of the type of school or character of the medical assistance. Briefly, these are as follows:

(a) Daily inspection, instruction, and disposition, usually in the morning, in a room set aside for the purpose, of children referred by the school physician or members of the teaching staff, who are sick with some communicable dis-

ease, suffering from parasitic skin infections, or in need of attention in case of accidents or emergency.

(b) Routine classroom inspection at frequent intervals for the purpose of detecting unreported or unnoticed cases of communicable disease, noting the hygienic conditions of the classrooms, including cleanliness, the seating of children, the temperature, the quality of ventilation, and the regulation of illumination from the standpoint of visual comfort.

(c) Health instruction to pupils.
(d) Health instruction to teachers.
(e) Follow-up work.
(f) Observation of the sanitary condition of the buildings and grounds.

2. Special duties—

(a) Physical inspection.
(b) Special classes.
(c) Open-air schools.
(d) School clinics.

B. When a Part-time Physician is Employed.

In schools having a volunteer medical service or service of a school physician on part-time basis, in addition to the routine duties outlined, the nurse may properly engage in special work under the physician's direction, with special attention to preliminary physical inspection for detecting the more obvious physical defects and referring handicapped children to the school physician for confirmation of the diagnosis and advice regarding the treatment needed.

Rural School Nursing.

Rural school nursing is quite a different proposition from that of nursing in urban schools and is surrounded by many difficulties. Of these may be mentioned the lack of nursing supervision, skilled medical assistance, and of hospital and clinical facilities. Furthermore, at the present time, by reason of the nation-wide interest in child health work, the demand for school nurses in rural districts is greater than the supply, and a number of earnest workers are attempting school nursing with but limited training and experience in this special field.

In a number of rural districts not only will the nurse be required to perform all of the general duties prescribed for a nurse of a school system having a full-time or part-time physi-

cian, but in many instances she will be called upon to act as a representative of the State health officer in so far as her work relates to the control of communicable diseases in the school, and to give instruction to posture and nutrition classes and in health education.

SCHOOL HEALTH SERVICE.

The board of education of school district No. 17 of Champaign County, Ill., has issued an interesting report for the year ending with June 30, 1922, in which the health service rendered is stated as follows:

The value of this service has increased and the methods of conducting it have been improved from time to time. Miss Frances North and Miss Florence Pinkston have been very busily employed during the past year and it is believed that very few preventable dangers to the health of the schools have been overlooked.

A summary of the year's work in the elementary schools shows 3006 home calls, 967 calls to schools, 462 other pupils visited at schools and 767 telephone calls. There were 1890 pupils examined and the following defects were noted and reported to parents: Enlarged tonsils, 584; enlarged lymph glands, 75; enlarged thyroid glands, 13; defects of nasal breathing, 309; defects of teeth, 514; defects of hearing, 27; defects of vision, 59; cardiac defects, 2. Pupils under the standard weight by 5 pounds or more numbered 313. There were 716 throats examined and 390 sore throats were found. Temperature was taken in 320 cases.

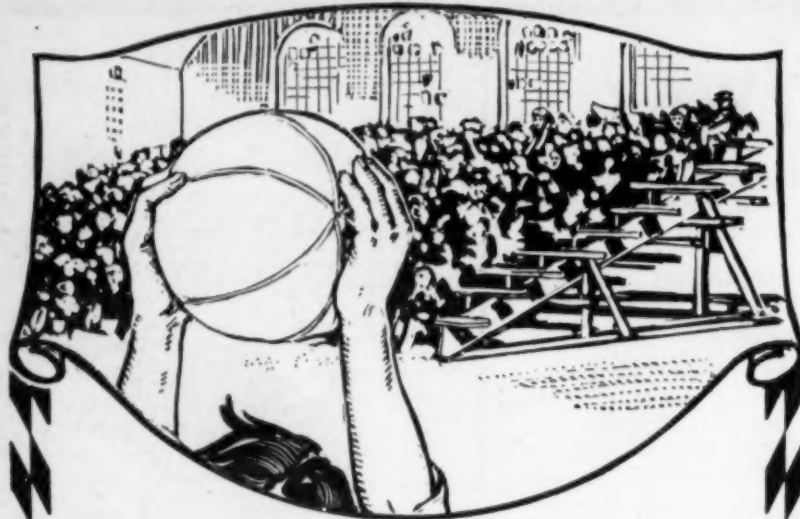
Cases of disease under observation at different times during the year were as follows: Scarlet fever, 23; scabies, 14; mumps, 6; chicken pox, 164; pink eye, 23; small pox, 2; whooping cough, 28; impetigo, 10; pneumonia, 9; measles, 2.

There were 17 operations for adenoids and tonsils secured for pupils. Only 29 schoolrooms required fumigation during the year.

For the high school, the number of home calls was 345 and that of telephone calls 1427.

HYGIENE AND SANITATION.

—Wheeling, W. Va. Nutrition classes for malnourished children will be conducted this year in all the graded schools. The Emerson method is used and the classes are in charge of school nurses with special training for the work.



Extra Seats at a Moment's Notice

Provide for the overflow crowd or the entire crowd, with seats suitable for temporary or permanent use, indoors or out—**KNOCKDOWN BLEACHERS.**

No crowd too wild or too heavy! Weight and strain only pull Knockdown Bleachers the tighter together. Seatboards, footboards and stringers are heavily ironed. (See details of construction in panels below.) Footboards are below seats to prevent clothes

from being soiled by feet. Sections are 14 ft. long, 3 to 15 seats high. Can't mar finest floors.

Colleges, large and small, consolidated schools, high schools, Y. M. C. A.'s, industrial plants and clubs from coast to coast are among their satisfied users. Many customers buy additional Knockdown Bleachers year after year. Write for circular and prices today.

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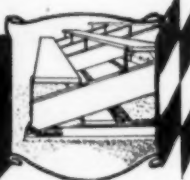
365 Griggs St.,

Urbana, Ill.

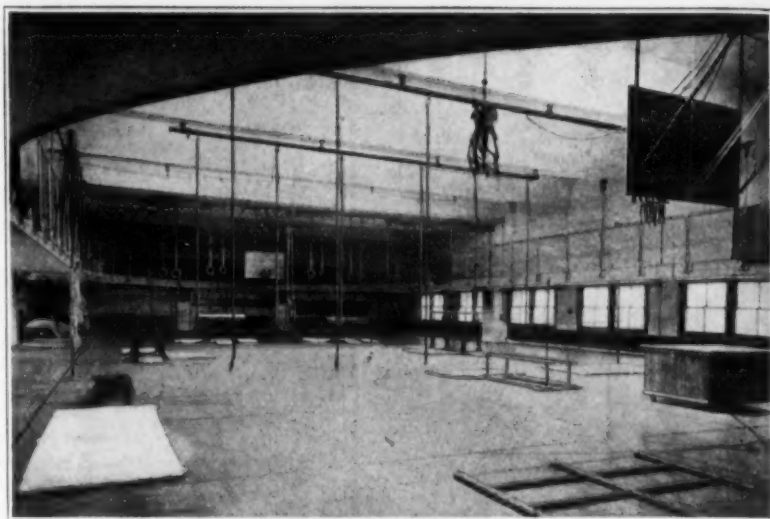
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THE CHICAGO LINE



SCHOOL GYMNASIUM EQUIPMENT

— MANUFACTURERS —

**PLAYGROUND OUTFITS-GYMNASIUM
AND ATHLETIC SUPPLIES**

—The Alliance, O., school board has appointed a school physician and nurse and will give attention to dental service.

—In order to cope with a serious retardation problem, the Boonton, N. J., schools are running a special tutor class for pupils over one year retarded, and who are not mentally deficient. The class numbers not more than eighteen at any one time, and the pupils are returned to the grade to which they would normally go, as soon as the judgment of the special instructor and standard measurements show them capable of returning to regular grade work.

—As a method of checking work, social and professional intercourse, exchange of ideas and devices, of securing uniformity in the work and of promoting all the interests and problems in a given grade, a system of grade-group teachers' meetings has been inaugurated at Nebraska City, Nebr. All teachers having the same grade work are required to meet each three weeks, to plan the work of the grade for three weeks ahead, discuss ways and means for securing better results, and take up matters of mutual interest as mentioned above. A chairman of the grade-group appointed for the year by the superintendent, makes a full written report of the minutes of the meetings, to the superintendent. As each grade holds twelve meetings per year, this totals ninety-six meetings for the year in the eight grades. The plan works admirably and teachers are enthusiastic in approval of the plan.

—Dr. Eber Simpson, a graduate of the department of medicine of the Washington University has been employed as health advisor and athletic coach for the East St. Louis, Ill., high school.

The school board of Columbia, Mo., has employed Herbert Blumer, former star tackle of the University of Missouri and captain of the team of 1921, as physical director at a salary of \$2400.

—Peoria, Ill. The school health work has recently been taken over by the Peoria Public Health Nursing Association. The two school nurses have been added to the nursing staff of the association, increasing the number of nurses to nine, and providing for nine city districts in-

stead of seven. The school duties are combined with the rest of the work of the nursing staff.

—The elementary schools of Chicago Heights, Ill., during the school year 1921-22 tried out the plan of serving a glass of milk to each pupil in the middle of the forenoon. The plan met with such success that it will be repeated. A local milk company supplies a half-pint bottle of milk, a cracker, and a straw at the cost of three cents. Children of indigent parents will be furnished the milk by various civic and social organizations of the city.

Promoting Pupil Welfare.

—The Schenectady, N. Y., school system, under the direction of Superintendent E. R. Whitney, provided special rooms on the roofs of school buildings for the use of anaemic children, and during the winter last year supplied 23,214 lunches, without charge, to these children.

Schenectady has 37 playgrounds for the children, equipped with sand, shoot-the-chutes, rings and other equipment to develop their health and keep them off the streets. And is their time all spent in play? Indeed not—for in the playgrounds in the summer, 23 skilled instructors conduct free open-air classes, where they teach dressmaking, cooking, millinery and basketry. The raffia is furnished free for the basketry classes, and baseballs and bats and tennis rackets are provided for those who wish to play the more grown-up games, all without charge.

School Board Supports Athletics.

—The Cuyahoga Falls, O., school board has provided the high school with a foot ball field, tennis courts, and baseball diamond, graded and landscaped, at a cost of \$70,000.

—Saginaw, Mich. The board of education has added \$100 to the yearly salary of a high school teacher for his extra services in acting as business manager of high school athletics and supervisor of the school athletic field.

School Board at Santa Cruz, California Resign Through Fear of Liability.

The board of education of Santa Cruz and of Sequel, Santa Cruz County, respectively resigned as a body on October 7, because of a ruling of Attorney-General Webb that school trustees may be held liable for injuries suffered to children on school grounds during school hours.

The decision was rendered in a case pending in Modesto, Calif.

The Santa Cruz board of education backed up its stand by asserting that the Mission High School in Santa Cruz had twice been condemned, and, in the face of the new ruling, should there be a loss of life through fire, the members of the school body would be held criminally liable.

The schools have been closed as a consequence, and a mass meeting held to determine ways and means of protecting the board and at the same time opening the schools.

Five citizens are to be appointed to act as a committee to provide insurance against the risk and twelve citizens have agreed to pay the annual fee of \$1,200 to cover the indemnity insurance pending the raising of a public fund for this purpose.

The board members who resigned issued a statement that the schools would not be reopened nor their resignations reconsidered until such a policy has been issued.

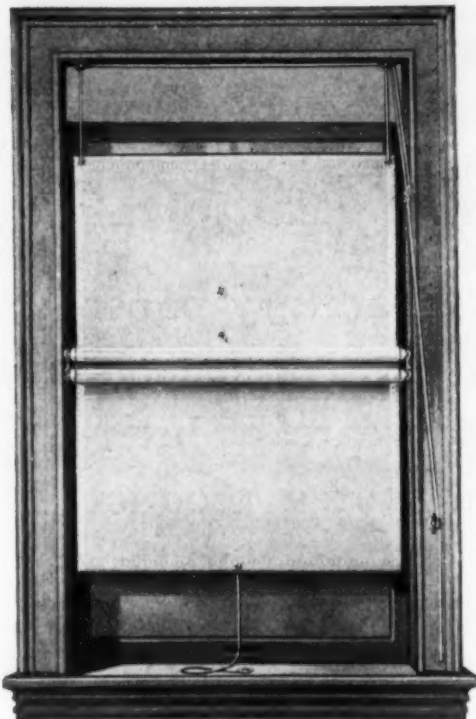
Whether members of a board of education or school trustees are liable in cases where children are hurt upon the school grounds depends upon whether such members were careless or negligent, according to an opinion voiced by Job Wood, Jr., deputy superintendent of public instruction, in discussing the case of the Santa Cruz Board of Education in resigning in a body.

Mr. Wood who spoke in the absence of Will C. Wood, superintendent of Public instruction, declared that the recent ruling of Attorney-General Webb made it plain that carelessness or negligence must be shown in order to fix responsibility on the heads of school boards.

—The board of education of West Aurora, Ill., was successful this year in maintaining the minimum qualifications of graduation from normal school or from college for all teachers employed in kindergarten or elementary grades. In high school the standard is graduation from a recognized college and at least one year's experience. The budget adopted by the board is only about \$1,000 more than last year, when a lower standard by which the equivalent of graduation prevailed.

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mounted inside casing.

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For use in Schools, Offices, Hospitals and public buildings.

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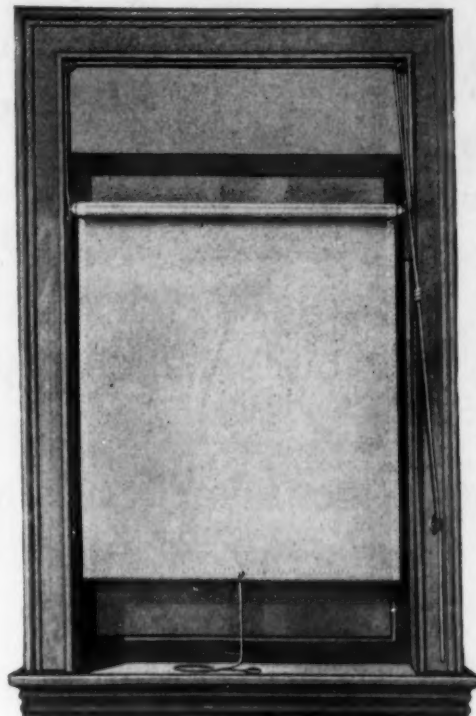
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AMONG SCHOOL SUPERINTENDENTS.

—According to the Bridgeport, Conn., Evening Star, the opposition to Superintendent Samuel J. Slawson in that city, is dying down. The newspaper says that Slawson's administration has been a strenuous one which is beginning to find recognition.

—San Francisco, California, is looking for a school superintendent and is asking college presidents throughout the United States to make recommendations. Alfred Roncovieri, the present incumbent, steps out of office January 8, 1923.

—New York, N. Y. Steps have been taken by the board of superintendents to reduce materially the pupil period load of academic teachers in the junior high schools. Up to the present term, these teachers were carrying a pupil period load of approximately 1,200, which is considered much too heavy when compared with the pupil load of about 800 carried by teachers in the senior high schools. Beginning with the September term, the situation was partially relieved with an increase in the quota of academic teachers in 32 schools having 9B classes. A still further reduction of the pupil load is planned for the term in February, 1923, funds having been included in the budget for that purpose.

—President John P. Conroy of the New York District Superintendents' Association has recently outlined for the board of education the duties, responsibilities and salaries attached to the position of district superintendent in the schools of the First City. These read as follows:

1. The district superintendents are the field officers of the board of education. Upon the loyalty, good judgment and zeal with which they carrying out the duties devolving upon them depends, to a considerable degree, the success or failure of educational policies as well as the spirit in which such policies are received by principals and teachers. Upon the accuracy and fairness with which they report upon the work done in the schools, as evaluated by them through their long experience as supervisors, depends, in no small measure, the official rating of principals and teachers, the renewal and permanency of license, and the promotion and in-

creases in salary of principals and teachers.

2. District superintendents are entrusted with the authorization of expenditures amounting to millions of dollars every year. By wise supervision of these expenditures and reasonable economy, the district superintendents eliminate wasteful and unnecessary expenditures, enforce economical and efficient administration of the schools, and save large sums of money annually.

3. District superintendents are primarily supervisors. After principals and teachers have been licensed by the board of examiners, district superintendents, acting as individual examiners, perform the most expert work, in encouraging and assisting them and in forming judgments on the quality and efficiency of their supervision and instruction. No work in our school system is more important than this. In every case of renewal and permanency of licenses, the judgment of the district superintendent is of great and, often, of decisive weight.

4. District superintendents are the highest rating officials in the school system. Their supervision includes elementary schools, model schools, probationary schools, continuation schools, junior high schools, senior high schools, training schools for teachers, etc. They supervise also the evening high schools, evening, elementary schools and vacation schools, without additional compensation. They are often given important special assignments of work in addition to their regular duties, such as the drawing up of courses of study and syllabuses, special investigation, etc.

5. A large number of other important duties, which are enumerated in the bylaws, are also performed by district superintendents. (Bylaws, Sec. 9, See Minutes, Board of Education, July 9, 1919, pages 1112-14. On account of the increase in the magnitude of the school system, the duties of district superintendents have been greatly increased during the last ten years, in the number of schools, principals and teachers under their supervision. At the present time each district superintendent supervises from 800 to 1,000 teachers.

6. The position of district superintendent is one of far-reaching influence in our school sys-

tem. They are the educational leaders of principals and teachers. To a very large extent the ideals and standards set by principals and teachers in a district are the results of the ideals and standards of the district superintendent. Through constant contact with pupils, teachers, parents and civic organizations, the district superintendent is a great social force in his community.

—County superintendent A. F. McDonald at Dallas, Tex., favors the centralization of the 87 school districts in the county into one unit. "Some districts in the county don't want to spend anything for their schools," superintendent McDonald said. "They are content with a ten cent tax rate, while others provide for their schools adequately with a \$1 tax rate. A county board, elected by the people, could assess a larger tax rate for the districts with low rates and force them to make proper provision for their children."

—At Concordia, Kansas, an ungraded room was opened this fall with an enrollment of eighteen children, two girls and sixteen boys. These children were all given the Binet and Porteus tests. The work is carefully adapted to the needs of the individual child. Much handwork of a useful and practical nature is being done. It is hoped that a few of the children will be able later to return to the regular grades. Others probably will remain in the ungraded room for a long time. Miss Myrtle Miller who had her training in the Fort Hays and Emporia Normal Schools and in the training school of Vineland, N. J., is in charge of the work. She taught similar work in the Evanston, Ill., schools last year.

—At Norman, Okla., a town of 6,000 population, the high school enrollment has reached 450. This is the largest high school in the state in proportion to population. Intelligence tests are used to determine grouping of pupils both in high school and in the grades. Extension courses are offered by the University of Oklahoma for the benefit of public school teachers. Supt. A. S. Faulkner is beginning his fourth year's service in Norman.

—The action of the Boston, Mass., School Board opening the fall term of school on the

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first Wednesday after labor day, instead of the second Wednesday, is being vigorously opposed by the summer hotel men. The latter hold that it would be for the best interests of the children to delay the opening of schools until October 1.

—At Belmont, Mass., the Dearborn intelligence tests have been given to all pupils in the first six grades; Terman national tests have been given to all pupils in the high and junior high; Binet-Simon has been given to a number of special cases, as also has Dr. Healey's completion tests, and others. The Mrs. Burgess reading tests are given to all pupils in the grades and junior high school, and have made use of the Curtis Practice material, the Ayres spelling scale and the Ayres writing scale. The authorities have begun to create teacher's professional libraries in all of the schools. During past years the high and junior high schools used the Otis tests, the Army Alpha, the Haggerty reading scale, and others.

—At San Luis Obispo, Calif., three new elementary schools have been opened under a plan adopted two years ago. This plan involves the six-three-three system of which these buildings house the first unit. A junior high school will compose the second unit. The city schools now number 1382 pupils with A. H. Mabley as superintendent.

—The school board of New Bedford, Mass., has under consideration, a recommendation of Supt. T. C. Morrill providing for the hiring of women assistants to the janitors of the larger buildings. These assistants would be responsible for the cleaning and dusting and would be paid a wage of forty cents an hour for a 45-hour week.

The teachers' council of New York City will make a study of the all-year school plan. The board of superintendents is also giving attention to the subject with a view of making definite recommendations for or against it.

—St. Francis County, Mo., the county in which Desloge is located, passed resolutions in a recent teachers' conference, urging the school board of the county to adopt a policy favoring a permanent tenure for teachers, based on efficiency in service and good behavior. In an effort to remove the schools from the influence of "petty" politics found in far too many communities, the teachers of Desloge have adopted a code of ethics. The essential features of this

code were adopted by the St. Francis County Teachers' Conference and an effort will be made in the district and state conference, which meet later in the year, to work out a code of ethics which will apply to teachers, school boards and communities and thus remove the schools from many of these influences which tend to cheapen their efficiency.

—Dr. H. T. McKinney, superintendent of the West Aurora, Ill., schools has directed his teachers to promote pupils on the sole basis of "where in the school can the individual pupil profit most." After two years teachers and all concerned are pleased with the results of this individual versus group consideration of pupils. To assemble all the information that should be taken into consideration when promoting a pupil, superintendent McKinney has devised a register which provides space for mental and standardized tests as well as to provide a list of common causes of failure to suggest things to try to counteract in teaching.

—Barberton, O. The school attendance has increased from 1807 in 1913 to 3657 in 1922. The school board has asked for a bond issue of \$250,000 to be voted on at the November election.

A YEAR'S SCHOOL PROGRAM.

Here is a school superintendent who has brought the whole-hearted support of the press to the service of his schools. The Daily Telegram of Long Beach, Calif., devotes a full page to the progress of the schools of that city for the past ten years, and the program for the ensuing year.

"The substantial and vital achievement" says the newspaper, "is to be found within the organization itself rather than in outward expressions as revealed in brick and mortar."

Enumerating Steps of Progress.

A few of the 22 specific things are here reported:

The budget system of finance. This was instituted eight years ago. Six years later the state department adopted for use throughout California almost the identical plan, item for item, that the Long Beach board of education adopted, in 1914.

The purchasing department and the employment of a business manager with sufficient clerical force to transact the business of the school

department.

Departmental teaching in the seventh and eighth grades.

Special classes for the retarded, the sub-normal, the deaf, and for those with serious speech defects.

Elasticity in promotions whereby pupils may be advanced at any time if their welfare demands it.

Classification of pupils according to their degree of intelligence as revealed by the best tests available. When the schools closed in June of the present year about 100 classes in the high school were organized on this basis, while in the elementary schools about 2800 pupils were classified in accordance with this principle. Modification of the courses of study whereby we may administer more effectively to the variability in capacities of pupils, are well under way.

Expansion of the supervisory staff. Principals have been relieved largely of clerical duties by the employment of clerks. Supervisors of penmanship, of agriculture, nature study, and elementary science; and of physical education, have been added.

Department of research. This department is charged with the responsibility not only of giving tests to determine intelligence and achievement, but to tabulate the same, and to return to the teachers the findings without delay with suggestions for improving conditions revealed by the tests. The department is also responsible for furnishing the school department with the latest in school procedure and accomplishment in the schools of the country.

The evening schools, in which last year almost 4,000 different individuals received some training designated to increase their capacity to earn or to enjoy.

Participation of teachers in the formulation of courses of study.

Establishment of the city teachers' club, with 100 per cent membership, in which classroom teachers, principals and supervisors have equal rights, and which has protected the rights of the teachers and promoted their professional spirit and growth.

The department of attendance.

The placing of all school cafeterias and lunch rooms under one manager, technically trained for the work.

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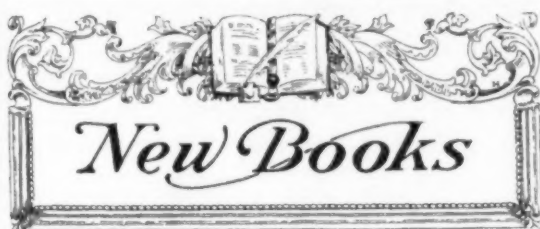
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New Books

Simple Construction Work in Paper and Card-board.

By Lincoln P. Goodhue. Cardboard, 69 pages, illustrated. Ideal School Supply Co., Chicago.

Here is a textbook with a minimum of text and maximum of book. In other words, the author employs a large page 9"x12" to present the illustrations upon a scale sufficiently large for ready comprehension.

The plan of the book is to present the detailed line drawings on a left hand page, and the text together with a halftone picture of the finished product.

The subjects run into quite a list of over one hundred objects which includes toys, household articles and the various paraphernalia of every day life. The book serves its purpose in a very complete manner.

The Constitution of the United States.

By Thomas James Norton, Cloth bound, 297 pages. Published by Little, Brown & Company, Boston.

The author in his preface briefly discusses the purpose of a constitution and then invites Chief Justice Marshall to interpret the American constitutional theory.

The value of the book must be found in the fact that the author presents the constitution paragraph by paragraph and then proceeds to discuss, explain and interpret the same. In doing so he also tells of the causes and tendencies that led to the enactment of the several provisions of the constitution and the amendments followed.

The value of the book is further enhanced by two charts, one dealing with the important developments in government during the Colonial period, and the other presenting a complete out-

line of the constitutional government of the United States.

Principles of Farm Practice.

Benjamin F. Davis. Cloth, 12 mo, 350 pages, illustrated. D. C. Heath & Co., Boston, New York, Chicago.

This text has been developed on the basis of the problem method and has been tried out in Smith-Hughes and general high school classes. The work begins logically with a discussion of soils, plants and the elements of crop production. It takes up then the various types of crops grown in the United States and the problems of plant improvement and plant diseases. The second part of the book is devoted to farm animals and their profitable production and use. The final chapters discuss farm management and the farm home and the rural community. The last chapter takes up problems that are beyond children of high school age and suggests topics that are entirely beyond the proper scope of the book.

The author has a sure, clear and interesting style and does not fail to make each topic interesting. In a few spots the book might be improved by adding some specific definitions and descriptions, but whatever may be lacking in this direction is offset by the broad discussions of general farm, crop and animal husbandry problems.

A First Book in English for High Schools.

By A. L. Murray and E. P. Wiles. Cloth, 478 pages. D. C. Heath & Co., Publishers, Boston, New York, Chicago.

This book has been developed for the purpose of (a) aiding the pupil to find something to write and speak about, (b) to help him gather, judge and arrange the thought, (c) to make him skillful and correct in handling the tools of expression, "language," (d) to cause him to adapt his speech or written material to the people who are to be influenced. With these four objectives before them the authors have departed from the traditional and have worked out a series of lessons for the first year of high school, in which the correct expression of thought serves to drive home correct mechanics of written and spoken English. The book is divided into two parts of which the first takes up composition as a whole

and the paragraph, and the second treats of the more formal matters, the sentence, words, punctuation, etc. The authors have been careful to make every lesson specific, definite and concrete and to choose illustrations and topics for themes which are concrete and fully adapted to the capacity and interest of children. The whole work is natural and logical and affords a welcome relief from the overburdened, formal texts of even recent date.

Thurstone Employment Tests.

By L. L. Thurstone. Examination in Clerical Work: Form A Examination in Typing: Form A. Price \$1.50 per package of 25 each. World Book Co., Yonkers, N. Y.

The clerical test consists of simple problems in checking arithmetical and spelling errors, in arranging names alphabetically, in marking letters, converting numbers into letters, in addition, etc. The last part is frankly a simple mental test based on well tried and widely used material.

The test in typing consists of copying a page of "copy" interlined with corrections, a simple tabulation and a spelling test.

The tests have the merit of extreme simplicity and brevity and should appeal to business men as well as teachers of commercial courses.

Actual Business English.

By P. H. Deffendall. Cloth, 202 pages. Exercise book, 79 pages. The Macmillan Company, New York, N. Y.

This textbook complies with the tendency to bring education closer to the needs of business. Mr. Deffendall recognizes the idea that those who enter the channels of commerce and trade should know something of the vocabulary that prevails here.

He therefore writes a business office grammar, bringing to his service not only the recognized fundamentals of grammar studies but also introducing the phraseology common to the business world.

In attempting this adaptation he is reasonably successful. He strives against the errors to which all office workers are prone, and strives in the direction of good English.

The textbook is accompanied by an exercise book. This contains forty lessons in which

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sentences are analyzed, and the student is asked to fill out incomplete sentences. Every sentence deals with a practical phase in business life.

Purposeful Handwork.

By Jane W. McKee. Cloth, 108 pages, illustrated. The Macmillan Company, New York, N. Y.

This little manual deals with paper work for children, and is a compilation of suggestions and ideals which may be successfully carried out in small schools.

After discussing briefly the psychology of handwork, and emphasizing that which she regards as more purposeful, the author presents a number of lessons.

These lessons are illustrated and cover a variety of toys that may be made out of paper, cardboard, jute, wood, etc., etc. They include folded airplanes, helmets and goggles, caps, mitts, dolls, houses, furniture, and a long list of articles, both useful and ornamental.

General Mathematics.

By William David Reeve. Book Two. Cloth, 446 pages. Ginn & Co., New York, Chicago.

This book carries on the work of Schorling and Reeve's first book in general mathematics. The work introduces the student to plane geometry and continues the application of algebraic notation to geometric problems and adds such general algebraic topics as the solution of quadratic equations by formula and by work on fractions and trigonometric identities. The trigonometric principles which grow naturally out of geometry are introduced in an elementary way and serve as a forerunner of the student's later work in this subject.

The teacher who has been seeking a geometry text that takes his work out of the rut of formal mathematics and gives it life, useful application and personal interest, without in any way reducing its purely mathematical value, will find this book most acceptable.

Wonders of Chemistry.

By A. Frederick Collins. 294 pages, cloth bound. Published by Thomas Y. Crowell Company, New York City.

The author has gathered the startling things in chemistry and presented them in concise, attractive and readable form. He tells about the wonders of the air, the marvels of water, of fire, of acids, gases, etc.

The events of recent years have brought us to a better realization as to the part that chemistry plays both in peace and in war. But, chemistry enters so many of the industrial activities and has become so important a factor in modern production, that a better knowledge of the same is necessary. The author covers the subject in a popular way and brings it up to the most recent developments and achievements.

The book is well illustrated. A variety of apparatus and devices is shown. These treat with the manufacture of radium, making of liquid air, cake ovens, pouring of liquid steel, making rubber tires, etc., etc.

Handbook of Effective Writing.

By Walter Kay Smart, Ph.D.; 267 pages, cloth bound. Published by Harper & Brothers, New York.

This book is designed for the use of writers and those who desire to become such. It deals with every phase involved in the writing of essays, editorials, or descriptive articles.

The author analyzes his subject, points to the essential points of inclusion and exclusion, and shows how to assemble and arrange material. He also deals with the preliminaries of an outline, order and sequence, introductions and conclusions, etc., etc. Attention is given to clearness in sentence building and grammatical correctness.

The book is compactly and well arranged and is bound to render a valuable service to those who desire to do effective writing.

High School Geography.

By R. H. Whitbeck. Cloth, 574 pages, illustrated. The Macmillan Company, New York, N. Y.

In the writing of a new geography for secondary school use the author departs from the idea that such a work should confine itself either to the physical or commercial, but rather to become a study of both, plus their interrelation. He holds to the thought that the geography of the secondary school ought to be humanized and that the influence of environment upon man's mode of life and upon his principal activities should remain in the foreground.

While the fundamentals in geography making are concisely presented and adhered to, the primary and secondary industries are compactly

yet comprehensively dealt with. The illustrations are happily chosen, covering not only the scenic wonders of the world, but also the more interesting activities and achievements of man.

PUBLICATIONS.

A Study of the Relation of Some Physical Defects to Achievement in the Elementary School. By Jasper N. Mallory. Contribution to Education Number Nine, issued by the George Peabody College for Teachers, Nashville, Tenn. The booklet discusses such topics as objective studies of related subjects, the purpose and scope of the present study, material and methods used in the study, preliminary analysis, and final analysis, using percentages and association coefficients.

Statistics of Teachers' Colleges and Normal Schools, 1919-20. Prepared under the direction of H. R. Bonner, specialist in educational statistics. Bulletin No. 8, 1922, U. S. Bureau of Education, Washington, D. C. The report presents the statistics of 371 teachers' colleges and normal schools for the year 1919-20. The list of teachers' colleges which appears for the first time, is composed of 46 institutions offering four years of work above the secondary grade and granting degrees. The work is considered of collegiate grade and is of such importance as to merit separate and special treatment. In the list are four institutions formerly included among colleges and universities. These are: State Teachers' College, Greeley, Colo.; State Teachers' College, Cedar Falls, Ia.; State Teachers' College, Albany, N. Y.; George Peabody College for Teachers, Nashville, Tenn. There are also four institutions formerly included with private schools and one originally listed with private secondary schools.

An Annual Calendar. Supt. Geo. F. Hall of Grantwood, N. J., prepares annually, a calendar for the desk use of teachers and principals. It is typewritten and lists the ten months of the school year in typical calendar style. The free days, including Sundays, Saturdays and vacation days are simply underlined to indicate "no session." The legal holidays are marked with initials of their common designation, as for example, on February 22, the letters W. B., replace the two two's. At the bottom of the sheet the legal holidays, etc., are carefully listed.

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THE COST OF SCHOOL BOOKS HIGHER.

(Concluded from Page 41)

in a durable and attractive product rather than in a low cost. And yet, the cost of school books in this country, all things considered, is reasonably low.

The publisher can secure his margin of profit only in quantity production and large sales. In other words, his earnings can only come out of a narrow margin of profit on each book, multiplied into a large output.

The contracts for school books made during the ensuing year will be higher. This cannot be avoided. But, the competitive element will hold prices to reasonable limits.

On the whole, this must be said: The publishers of textbooks in this country have brought to the service of the American schools the ablest authorship obtainable, the highest mechanical ingenuity and skill in book production, and enterprise and energy in their marketing methods. No country on earth can boast of school books that are either as efficient, as practical and as attractive as those provided for the schools of our own country.

THE MUNICIPAL PLAN FOR SCHOOL CONTROL.

(Concluded from Page 42)

for the municipal government, and that to maintain the schools as a part of the local government the taxes must exceed the limit set by law. It is necessary to remove the schools from the city control or change the charter.

Final Observations.

My study has led me to feel that the "tax situation" is the real cause for the demand for a change in the school control, and I feel that some adjustment at this point is necessary. Furthermore, I am persuaded that schoolmen

should strive to make the schools more efficient, more economical; and as far as they can, lend their efforts toward the unity of community life. The municipal plan is new and largely untried, but in some sections public sentiment in its favor is strong. The only way to prevent its final triumph is to make the present system worthy of continuance. Schoolmen should not feel that the problem is settled, for it is not. New ideas spread rapidly in modern times, and no institution can hope to remain that does not meet public demands.

Personally, I feel that it would be a mistake for our schools to enter politics; for politicians as a rule are not schoolmen. It would be far better to adjust our present system in the light of our present-day needs, and retain the schools entirely free from local government.

ARE THE SCHOOLS GIVING THE CHILDREN A SQUARE DEAL?

(Concluded from Page 44)

When each child gets the opportunity which he can use and profit by in the school which he attends, when each gets the opportunity that fits his capability to use, we will have attained the goal of an ideal education of an ideal state. The expression "equality of opportunity in education for all children" is pure communism if not interpreted to mean that each shall have equal right and title to fit his opportunity.

HOW ONE CITY SOLVED ITS BUILDING PROBLEM.

(Concluded from Page 50)

garden purposes and tennis courts. Few cities of the size of Kent will be found with a superior site for school purposes.

The course of the board of education in this city has been, in the opinion of the writer, an ideal one. At times the board questioned some

recommendations made, but studied them carefully and finally was satisfied as to the course to pursue. The educational benefits accruing to the city in years to come amply justify all the delay and expense incurred in making the change of site and plans for the building after the original plans were well advanced.

NOTABLE APPROPRIATIONS FOR SCHOOLS.

(Concluded from Page 52)

Chester, Pa.*	51.6
Lancaster, Pa.	51.5
Rockford, Ill.	51.3
Springfield, Ill.*	54.4
Fresno, Calif.	54.3
Long Beach, Calif.	53.4
South Bend, Ind.*	52.0
Johnstown, Pa.*	50.2

Cities 30,000 to 50,000 Population.

Oak Park, Ill.*	62.3
Council Bluffs, Iowa	61.8
Cedar Rapids, Iowa	60.8
Pontiac, Mich.*	59.0
Hazleton, Pa.*	58.8
San Jose, Calif.*	58.0
Waterloo, Iowa	56.8
Anderson, Ind.*	56.4
Muncie, Ind.*	56.3
Muskogee, Okla.	55.0
Hammond, Ind.	54.8
Portsmouth, Ohio.*	54.9
Evanston, Ill.*	53.5
Pasadena, Calif.	53.4
Charleston, W. Va.	53.2
Kenosha, Wis.	52.0
Springfield, Mo.	51.7
Quincy, Ill.	51.5
Battle Creek, Mich.	50.9
Cicero, Ill.	50.8
Kokomo, Ind.*	50.3

*Data for the year ending 1920.

Cities not starred, data for the year ending 1921.

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We have selected the card illustrated above on which we are making a special mail order price. A new and distinctive design engraved com-

plete from a steel die and hand illuminated. Sells at retail for 15 cents each. We will print your name just below the sentiment and send to you, post paid, ten of these beautiful cards for \$1.00. Ten cards, without name, 50 cents. Envelopes are included. Do not delay but order today.

THE HARTER SCHOOL SUPPLY CO.
634-636 Huron Rd., Cleveland, Ohio.

THE CHICAGO SCHOOL BOARD DISGRACE.

(Concluded from Page 38)

The indictments, some seventeen in all, also include officials connected with contracting firms and men not connected with the former board of education. Eight board employees have been suspended.

The charges of graft are made in connection with real estate and coal contracts, printing deals, and with the purchases of various supplies used by the schools. The indicted school officials are alleged to have received bribes and to have been interested in contracts dealing with the school system.

The charges of graft are followed by charges of gross extravagance in the expenditures of public funds to the neglect of some of the most essential things, such as housing and equipment, thus weakening the school system. Fully \$1,000,000, it is alleged have been wastefully expended.

As already stated, we do not pretend to pass on the guilt or innocence of the indicted men. The very fact, however, that a board of education of a leading American city, presumably constituted of its best citizenship, should come under, the suspicion of having engaged in criminal acts, is depressing to all those concerned in the welfare of a rising generation.

While the cloud hangs over the good people of Chicago, and is, no doubt, regretted by them, the scandal also concerns the people outside of that city. Whatever makes or mars the training for citizenship of any one section of the country, and thus affects the prestige and stability of an entire Republic, concerns in a greater or lesser degree, all sections of the country.

Chicago must provide its children with the best that modern school administration can

devise, and as an integral part of a great nation, owes it to itself to do its full share towards the educational progress of that nation.

SOME SCHOOL BOARD MEMBERS I HAVE WORKED WITH.

(Concluded from Page 90)

In one town where I worked, one of the finest men I have ever known, was appointed to our board. This high estimate which I have for him is not based upon intimate friendship, because this was not the case. A man is truly great because he has ideals and because he lives up to them.


It is an interesting fact to note that of the 63 Americans in the Hall of Fame, not one is listed as a business man, although that is one of the regular headings intended. There are among them those who were great in business, like Peter Cooper and George Peabody, but for their business acumen alone their memories would long since have perished. The reason they stand out and above thousands of others is because they possessed ideals. We have forgotten what their business was, but we know them as great philanthropists. After Rockefeller has been dead ten years he may be elected to the Hall of Fame. Fifty years from now very few will associate Rockefeller with kerosene oil. He will live as a great philanthropist, the one who did so much to eradicate disease from the earth. All this digression is necessary to explain just what is meant when I say that this school board member is an idealist. He is also a very active one, not always tactful, but ever forceful. For him there are but two sides, right and wrong. He seldom repeats. He is a talented speaker. His thinking never gets befogged. He goes to the very core of all questions, sees straight and always in the interests of humanity. He is a lover of real sports, but

he never plays at the game of school board member. The responsibility is too great and he senses it. For this reason he tries to be statesmanlike in all his school board relations.

Of the school board members I have met—the last is the least—but not in his own mind. He usually sits quietly with a bored look, and then all of a sudden pronounces in a few rapid sentences the last and final word on the subject, whatever topic may be under discussion. All the Greek oracles together held not half the wisdom that this man thinks he possesses. One cannot reason with him. He will listen to you, but your arguments fall on him like little drops of water on a wild duck's back. He has notions of his own, and he will keep them as a miser clings to his gold. Of course, he is not popular, but being a man of some means, of great ability to "bluff," and an habitual kicker, he does his share of destruction. The only treatment of such is just to tolerate them the best one can for just as short a time as one has to, and then it is a good plan to forget them entirely.

—Dallas, Tex. The purchasing agent of the board has been given authority to purchase \$250,000 worth of lunch-room supplies to meet the needs of the enlarged lunching system. Purchases will be made where service and quality may best be secured and the purchasing agent is to be given the power of final decision.

—Winchester, Mass. The school board has intimated that it will abide by its former decision to segregate children of negroes and foreigners in an isolated school building. At the Wadleigh school it is planned to make a change. At that school some forty children of wealthy parents have been kept in one room, while children from the poorer sections have been assigned to other rooms. The board has agreed to redistribute the children and to eliminate the segregation policy.



Blackboard "Propaganda"


THE blackboard is the medium for the teacher who desires to drive home to children messages relating to goodness, to loyalty, to conduct, to information.

Blackboard "Propaganda" written with colored sticks of "LECTURERS" CHALKS will be additionally effective, because of the powerful appeal that color makes to children. Speaking of the appeal of color leads us to suggest "CRAYOLA" CRAYONS for drawing lessons. We recommend these two famous members of the family of

GOLD MEDAL CRAYONS

To supervising officers and to principals we shall gladly send a brochure on the value of blackboard drawing. It will be useful for conference material.

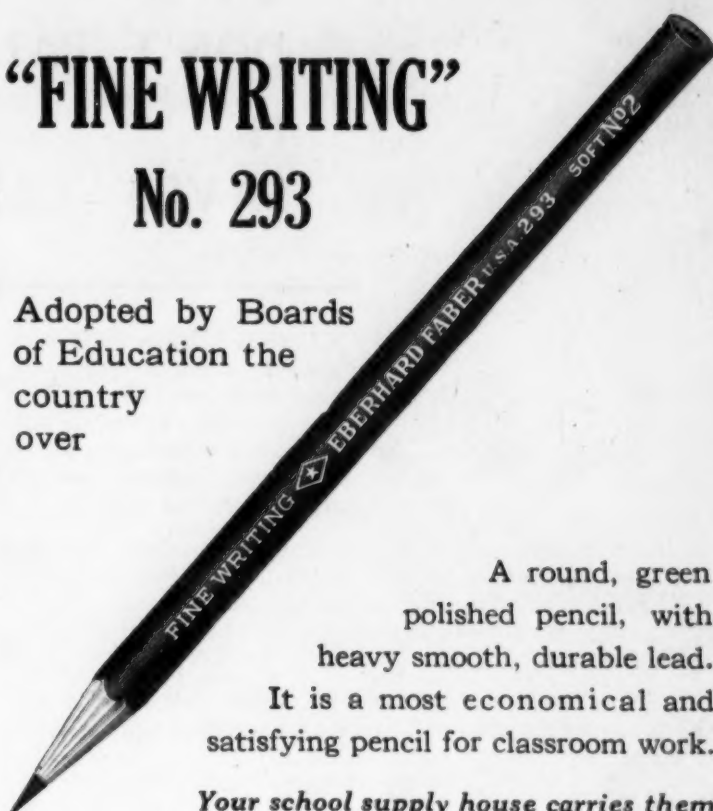
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NEW YORK



A FEW FIRST IN AMERICAN EDUCATION.

H. E. Stone, Dean of Men, West Virginia University.

1. Harvard College was established by the Colonial legislature of Massachusetts in 1636. It was the first college to be established in America.

2. The Massachusetts Law of 1642 commanded that all children be taught to read. This was the first time in the English speaking world that such an order came from a legislative body.

3. The Massachusetts Law of 1647 was the first assertion of the right of the State to require communities to establish and maintain, under penalty of fine upon refusal, schools.

4. Free schools were first organized on a large scale by a private philanthropic society in New York City.

5. The first State Superintendent of Common Schools (1837-40) was the Rev. Samuel Lewis of Ohio.

6. The first high school to provide classes in sewing and cooking was at Toledo, Ohio.

7. The first State Normal School in the United States was opened at Lexington, Massachusetts, on July 3, 1839. It had three pupils and one teacher.

8. The first successful American educational periodical, the American Journal of Education, was published from 1826 to 1830. The editor was William Russell.

9. The first manual-training high school was opened in St. Louis in 1880 as a part of Washington University.

10. The first American school for training kindergarten teachers was opened in Boston in 1868.

11. The first State Board of Education in Massachusetts was created by the legislature in 1837. Horace Mann was its Secretary.

12. The first public school in Chicago was opened in 1830.

13. The first schoolhouse in Buffalo was erected in 1806.

14. Medical inspection of children in the public schools of the United States first began in Boston, in 1894, as a result of a series of epidemics among school pupils there.

15. In 1867 Henry Barnard who had been State Superintendent of Schools of Connecticut, was appointed the first United States Commissioner of Education.

16. The office of City Superintendent of Schools was first established in the United States in Springfield, Massachusetts.

17. The first higher technological school to be established in the United States was the Rensselaer Polytechnic Institute, Troy, N. Y. It was established in 1825.

Pupils as Traffic Police.

—The Fairmont, W. Va., school system has a well organized junior traffic police to protect small pupils against the dangers of automobiles, trucks and other vehicles. During the two years of this organization the junior officers have eagerly performed their duty and won the praise of the community.

The boys selected for this work from the grammar grades are called together periodically and addressed by the chief of police, the Mayor of the city and others. Attractive arm bands with the letters S. F. (Safety First) are emblems of their authority. When a boy falls behind in his studies or fails to perform his duty properly, or is not well behaved in school, he is no longer permitted to act as a junior traffic officer.

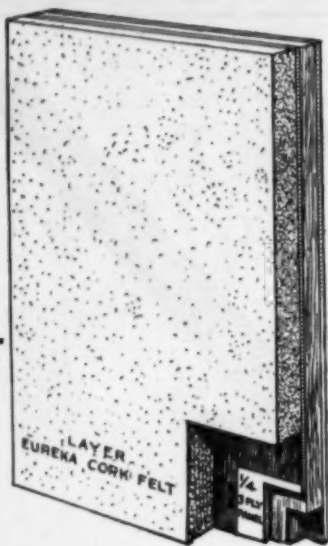
TABLE 2. SALARIES OF RURAL SCHOOL SUPERVISORS.

(Concluded from Page 48)

STATE	County or other rural supervisors		Supervisors in places 2500-25,000 population		Supervisors in places over 25,000 population	
	Number reported	Median salary	Number reported	Median salary	Number reported	Median salary
Oregon	6	1380	5	943*	1	3900
Pennsylvania	81	1800	25	1075*	101	2100
Rhode Island	None	....	8	1076*	16	2137
South Carolina	6	1500	None	....	2	1725
South Dakota	13	1200	1	1400	7	2000
Tennessee	11	1200	1	2000	9	1600
Texas	None	....	4	1188*	39	1950
Utah	34	1800	2	1574*	25	2550
Vermont	None	....	3	1058*	None*	....
Virginia	29	1325	None	....	35	1793
Washington	None	....	12	1046*	33	2450
West Virginia	77	2100	14	970*	17	2100
Wisconsin	80	1500	16	902*	51	2250
Wyoming	None	....	7	2580*	None*	....

*Percentages of counties or other rural supervisory districts and towns reporting supervisors in each population group is approximately the same as those reporting superintendents. See note 1, table 1.

*No cities of this population group in the State.
*The median salary is given wherever possible. However, a great many reports from cities were given in total salaries paid entire group of supervisors and only an average salary could be obtained. These are denoted in every case by an asterisk.



TACK— DON'T TALK IT SAVES TIME

EUREKA Bulletin Boards are great time savers for every teacher. They relieve the burden of verbal announcement to each class—and school announcements are always necessary.

Bulletin Boards serve as efficient information bureaus and the student body will immediately get the idea. EUREKA Cork panels over blackboards will add greatly to the dignity of your classroom, and our cabinet style, with glass doors, is also mighty attractive.

For school installations EUREKA Bulletin Boards are the accepted standard. They are guaranteed not to warp or chip.

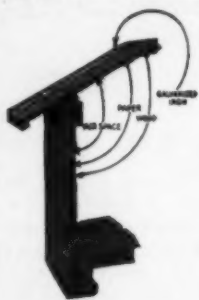
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We have made portable school houses for other people for over 25 years. Now you can buy Bossert School Houses with all our new patents and improvements direct from us and save money for your school board.

Write us full requirements and we will send details of cost of building completely erected.

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Builders of School Houses for over 25 years.

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Protect the Health of the Children

If the children in the classroom should be bright and cheery the heat must be uniform and the ventilation just right.

Heating and Ventilation are two important factors in the schoolroom. If the air in the schoolroom is foul and ventilation poor, disease is almost inevitable.

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No separate independent foul air ducts or flues made of brick or metal are required. It is easy to set up and regulate and will not clog with soot or rot out. Every part is combined and all stove and ventilating pipes up to five feet are furnished.

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for

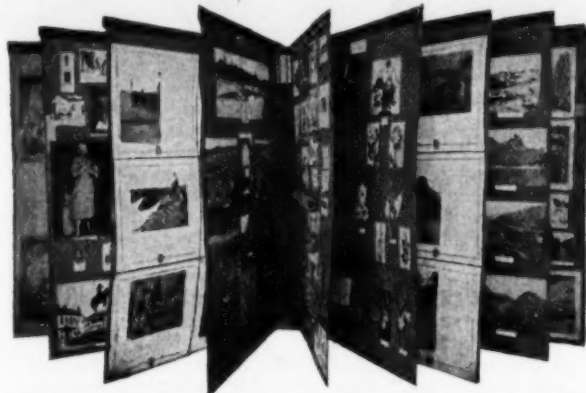
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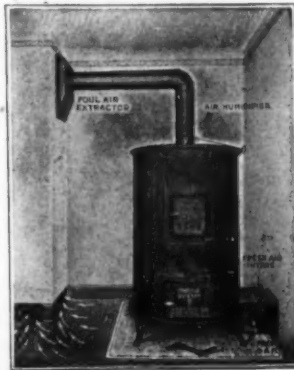
The ARMSTRONG SECTIONAL SCHOOL BUILDINGS are complete in every detail, having double floors, double side walls and ceilings. With every modern convenience makes them the best Portable School Buildings on the market today. With the perfect lighting and ventilation, they are without equal. Our buildings can be taken down and moved to another location without mutilating in the least any of the parts. We can prove it. If you write us what you desire, we will send you full details. We are specialists in Sectional School construction.

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